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ABSTRACT

This report, in examining higher education accountability, reviews how student assessment is used nationally and in Utah to improve higher education accountability, and reviews the methods used in Utah to monitor faculty workload. Student assessments do provide a direct method of evaluating higher education effectiveness, and Utah's institutions are now developing student assessment programs to meet Board of Regents' and accreditation requirements. Institutional commitment and progress, however, varies widely, and it is suggested that the Utah State Legislature should act to spur greater efforts in developing these assessments at those institutions where their development is found to be at an unsatisfactory pace. Legislative alternatives are discussed. The report states that acquiring more information on faculty workload will require considerable political and administrative effort to overcome the barriers which now limit its availability. Obstacles to the availability of this information and problems with existing reports on faculty workload are identified. A past effort to collect workload data shows differences in teaching loads among Utah System of Higher Education (USHE) institutions that may be important to legislators or the public. However, the report data is incomplete and may not be accurate, suggesting that the legislature may wish to authorize regular reports on faculty workload. Appendices provide USHE institutional progress reports on student assessment programs and activities. (GLR)

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REPORT TO
UTAH STATE LEGISLATURE
REPORT NUMBER 91-03

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A REVIEW OF TWO HIGHER EDUCATION ACCOUNTABILITY ISSUES:

STUDENT ASSESSMENT
AND
FACULTY WORKLOAD

MAY 1991

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WAYNE L. WELSH, CPA
AUDITOR GENERAL

May 8, 1991

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **A Review of Two Higher Education Accountability Issues: Student Assessment and Faculty Workload** (Report 91-03). A digest is found on the blue pages located at the front of the report. The objectives and scope of the audit are explained in the Introduction.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

Wayne Welsh

Wayne L. Welsh
Auditor General

WLW/lm

DIGEST OF
A REVIEW OF TWO HIGHER EDUCATION ISSUES: STUDENT ASSESSMENT AND FACULTY WORKLOAD

Interest in higher education accountability is reflected in the requests for this report. Representatives Moody and Bradford requested a review of techniques being used nationally to improve higher education accountability. We found states are increasingly using student assessment data to improve higher education. A separate request from Senator C. E. Peterson asked for an audit of faculty workload and productivity with emphasis on classroom hours and actual research activities. We found little reliable data exists about faculty workload in Utah or other states.

Student assessment has been praised nationally as a new higher education accountability tool. The fundamental concept of assessment is that the measure of an institution's quality is what its students learn; funding levels, faculty characteristics, and library quality are important only insofar as they contribute to student learning. Many states now have student assessment initiatives in place. In some instances, assessment has been a powerful inducement to institutional change by focusing attention on undergraduate achievement.

Faculty workload measurement embodies a more traditional concept of accountability by focusing on resource use rather than student outcomes. Faculty workload has long been a controversial and sensitive topic; those within the higher education system feel that outsiders have little understanding or appreciation for what and how much faculty do. Unfortunately, satisfactory methods to measure faculty workloads and communicate them to outsiders have not been developed. While the teaching load may be quantified, the non-teaching workload remains very difficult to measure.

Throughout the nation, bringing more public accountability to higher education institutions has been difficult. Traditional accountability processes in higher education rely on peer review. Educators emphasize that the diversity and complexity of higher education makes it very difficult for non-educators to understand or evaluate colleges and universities. Furthermore, the higher education system may not be well suited for detailed control mechanisms. Colleges and universities are centers of creativity that are best fostered in unstructured environments. A decentralized governance structure has developed in higher education to help provide faculty and students the independence and freedom important to create and disseminate knowledge.

New accountability measures should not be required of Utah's colleges and universities without an appreciation of their current situations. For example, existing mechanisms such as legislative budget hearings, accreditation requirements, and academic program reviews may provide an adequate level of accountability. Requiring additional accountability mechanisms could divert resources and attention from other critical issues such as coping with growing student enrollment.

The following summaries describe the two main issues addressed in the report.

Student Assessment Can Contribute to Higher Education Accountability. Student assessment provides a direct method of evaluating higher education effectiveness. Assessment programs measure the benefits students and the community receive from colleges and universities, and indicate how they can be increased. Some states require the reporting of assessment information as part of higher education accountability programs; however, the range of programs is broad. Utah's institutions are now developing student assessment programs to meet Board of Regents' and accreditation requirements. While it is early to judge, institutional commitment and progress appears to vary considerably. The Utah Legislature may act if it wants to be involved in how assessment progresses. In many states, legislative action has been a key factor in spurring reluctant institutions to develop assessment procedures. The Utah Legislature should act if it wants to provide direction or stimulate progress. However, if legislators are satisfied with ongoing assessment plans and efforts they should continue to rely on the Board of Regents to guide statewide assessment efforts.

More Faculty Workload Data Could Be Provided. While legislators could direct the Board of Regents to report annually on faculty workload, the need for and purpose of workload reporting should first be clarified. Obtaining better faculty workload information will require considerable political and administrative effort to overcome the barriers which now limit its availability. The Board of Regents' staff recently compiled a special report on faculty workload (see Appendix III), which includes data on teaching loads, total faculty workload, and institutional productivity. The workload report shows many differences in teaching loads among USHE institutions that may be important to legislators or the public. If that type of information is useful, the January 1991 workload report should be considered only as a starting point because its data is incomplete and may not be accurate. However, the Legislature may decide that additional workload data is not required.

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REPORT TO

UTAH STATE LEGISLATURE

Report 91-03

A REVIEW OF TWO HIGHER EDUCATION ACCOUNTABILITY ISSUES:

STUDENT ASSESSMENT
AND
FACULTY WORKLOAD

May 1991

Audit Performed By:

Deputy Auditor General	Douglas E. West
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Chapter I
INTRODUCTION

Although it is difficult to obtain, good information about the learning and teaching that takes place at the state's colleges and universities is important. Prospective students and their families want information that can help them decide whether and where to attend college. Legislators want information that can help them decide how institutions may be improved and how resources should be allocated. Higher education officials appreciate the desire of the public and legislators to have information about institutions' effectiveness and efficiency; however, educators are wary about providing information that is incomplete and subject to misinterpretation. This report reviews the information available in two areas that legislators have inquired about: student assessment and faculty workloads.

Student assessment has been praised nationally as a new higher education accountability tool. The fundamental concept of assessment is that the measure of an institution's quality is what its students learn; funding levels, faculty characteristics, and library quality are important only insofar as they contribute to student learning. Many states now have student assessment initiatives in place. In some instances, assessment has been a powerful inducement to institutional change by focusing attention on undergraduate achievement. Utah institutions are starting to develop a variety of assessment methods.

Faculty workload measurement embodies a more traditional concept of accountability by focusing on resource use rather than student outcomes. Faculty workload has long been a controversial and sensitive topic; those within the higher education system feel that outsiders have little understanding or appreciation for what and how much faculty do. Unfortunately, satisfactory methods to measure faculty workloads and communicate them to outsiders have not been developed. While the teaching load may be quantified, the non-teaching workload remains very difficult to measure.

Better information about student learning and faculty workloads may permit a greater public understanding of higher education. However, the measurement of educational processes and outcomes is very complex; there is a risk that information may give an incomplete picture and be misunderstood. Moreover, higher education officials question whether attempting to provide this type of public information will improve higher education quality, or simply divert resources and attention from more immediate issues, such as coping with student growth.

Accountability Is an Important Concern

All organizations receiving taxpayer funds must be accountable for what they accomplish with them. Since public and higher education consume a large part of the state's budget, taxpayer representatives are very concerned that those funds are well spent. In 1990, the Legislature passed a public education accountability package, which Governor Bangerter signed into law. The three bills required adoption of certain financial reporting procedures, standardized achievement testing of students, and school district performance reports. Now, attention is turning to what higher education accomplishes with its public funds.

Interest in higher education accountability is reflected in the requests for this report. Representatives Moody and Bradford requested a review of techniques being used nationally to improve higher education accountability. We found states are increasingly using student assessment data to improve higher education. A separate request from Senator C. E. Peterson asked for an audit of faculty workload and productivity with emphasis on classroom hours and actual research activities.

The topic of higher education accountability raises questions about who higher education should be accountable to and for what. Stakeholders, besides those who work in higher education, include elected representatives, taxpayers and funding agencies, students and their families, communities and individuals. Not only do higher education institutions provide educational services, but they conduct research and serve their constituencies, contributing to economic development and cultural richness.

The Utah System of Higher Education (USHE) includes nine institutions classified into three types. Appendix I shows the criteria which distinguish the institutional categories. Figure I shows the classification of each USHE institution and its 1990-91 general fund appropriation for education and general expenditures. Institutions receive additional taxpayer funds through grants and contracts. Additional funding comes from student tuition and from private sources.

FIGURE I

USHE INSTITUTIONS BY TYPE AND
1990 - 1991 GENERAL FUND APPROPRIATION
FOR EDUCATION AND GENERAL EXPENDITURES

Institutions by Type	1990 - 1991 General Fund Appropriation
Teaching and Research Universities:	
University of Utah	$102,788,500
Utah State University	50,995,100
Metropolitan/Regional Universities:	
Weber State University	33,831,100
Southern Utah University	11,338,100
Community Colleges:	
Snow College	6,229,600
Dixie College	6,564,900
College of Eastern Utah	5,134,400
Utah Valley Community College	13,939,400
Salt Lake Community College	18,820,300
USHE Total	$249,641,400

Accountability Measures Must Be Compatible with their Environment

Higher education accountability is enhanced by information which provides meaningful explanations about its achievements and processes. While accountability is important, the higher education system may not be well suited for detailed control mechanisms. Colleges and universities are centers of creativity that are best fostered in unstructured environments. Freedom of thought and activity is highly valued. A decentralized governance structure has developed in higher education to help provide faculty and students the independence and freedom important to create and disseminate knowledge.

While the educational, economic, and cultural benefits of higher education are generally recognized, some people have been frustrated by the difficulty of getting detailed information. Although educators emphasize that the diversity and complexity of higher education makes it very difficult to obtain and interpret information, legislators and the public want answers to their questions about higher education. In fact, some of the current national concern about higher education accountability may reflect a feeling that educators have been unable or unwilling to provide information about what they accomplish.

External Accountability Requirements May Be Resisted by Higher Education

Throughout the nation, bringing a more public accountability to higher education institutions has been difficult. Traditional accountability processes in higher education rely on peer review; external sources of control tend to be viewed with skepticism and distrust. In fact, extensive legislative involvement may be viewed as a threat to the integrity of higher education.

To the extent that individuals in higher education have felt that external controls were inappropriate, they have resisted them. Robert Barak, in Maximizing Opportunities Through External Relationships (edited by Daniel T. Seymour), describes the following avoidance mechanisms used by higher education nationwide to defend against external threats.

1. Claiming that higher education is extremely complex and poorly understood by outsiders, and that it is therefore best to leave higher education alone.
2. Playing one group off against another.
3. Controlling information by providing only favorable information, limiting the availability of data that could lead to effective oversight, and providing untimely responses to data requests.
4. Avoiding resource dependence.

We encountered some of these mechanisms during our work. For example, we were repeatedly told that legislators and the public do not understand higher education. In addition, we found obtaining information about higher education is very difficult; institutional personnel were very cordial with us, but also very concerned and cautious about sharing data. Apparently, institutions feared we would misunderstand and misuse their information.

Accountability Expectations Should Consider Utah's Environment

New accountability measures should not be required of Utah's colleges and universities without an appreciation of their current situations. Two important considerations are the accountability mechanisms already in existence and the stress caused by growth in number of students.

Utah's higher education officials feel existing mechanisms provide an adequate level of accountability. Officials point to a variety of practices that help ensure appropriate levels of student learning and faculty workload. For example, periodic accreditation and academic program reviews focus on both academic quality and faculty productivity. In addition, annual legislative budget hearings provide an opportunity to review state funding of higher education. While higher education officials accept the need to be accountable, they feel existing processes provide appropriate controls and suggest that requiring additional mechanisms may divert resources and attention from more important issues.

Perhaps the most pressing issue facing Utah's higher education system is coping with growing student enrollment. Expected growth in the number of students coupled with limited state resources reemphasize the need for effectiveness and efficiency in higher education. At the same time, just coping with enrollment growth will make it difficult to free funds to implement new mechanisms, such as student assessment. Student enrollment this year is much higher than had been expected. Higher education officials predict a tidal wave of enrollment growth as the mass of students moves from public to higher education.

Audit Scope and Objectives

As noted earlier, this audit was initiated in response to two separate legislative requests. The issues of what students gain from higher education and what faculty produce are obviously important and timely both on the national and state levels. These requests raise additional issues of the type of accountability that is expected of Utah's higher education system.

Given the complexity and potential ramifications of the topics, a comprehensive review of the issues at all nine Utah institutions would be a major undertaking. Therefore, for this report, we limited our scope to reviewing existing processes and mechanisms.

Specifically, our audit objectives were:

1. Review how student assessment is used nationally and in Utah to improve higher education accountability.
2. Review the methods used in Utah to monitor faculty workload.

Chapter II

STUDENT ASSESSMENT CAN CONTRIBUTE TO HIGHER EDUCATION ACCOUNTABILITY

Student assessment provides a direct method of evaluating higher education effectiveness. Assessment programs measure the benefits students and the community receive from colleges and universities, and indicate how they can be increased. Some states require the reporting of assessment information as part of higher education accountability programs; however, the range of programs is broad. Utah's institutions are now developing student assessment programs to meet Board of Regents and accreditation requirements.

The Utah Legislature may act if it wants to be involved in how assessment progresses. In many states, legislative action has been a key factor in spurring reluctant institutions to develop assessment procedures. The Utah Legislature should act if it wants to provide direction or stimulate progress. However, no action is needed if legislators are satisfied with ongoing assessment plans and efforts.

Utah's higher education officials feel that legislative action is not needed because the Board of Regents has already initiated an assessment program. The Board of Regents' staff feels that Utah's institutions are making good progress on a difficult task, and that premature legislative action could disrupt ongoing efforts. Depending on its form and content, legislative action could undermine ongoing efforts by the Board of Regents and institutions.

Assessment Helps Redefine Important Higher Education Issues

Assessment has provided a new way of thinking about higher education responsibilities. In doing so, it has proved to be a powerful, if controversial, "lever for change" in the nation's higher education system. A recent article in Change magazine comments on assessment: "as a phenomenon, it is at once powerful, scary in the wrong hands, increasingly a matter of law, and home to the day's most provocative discussions of teaching and learning. As a movement, it tilts at the deepest structures and habits of academic culture...." Assessment is powerful because it poses fundamental questions which both those within and outside higher education want answered. Figure II shows some of the questions raised by assessment.

FIGURE II

TYPES OF QUESTIONS ADDRESSED BY ASSESSMENT *

Assessment is best understood as a set of questions, such as the following, asked from a college or university perspective:

- What is the college's contribution to student learning? How and what do we know of that contribution?
- Do our graduates know and can they do what our degrees imply? How do we ensure that?
- What do the courses and instruction we provide add up to for students? Are they learning what we are teaching?
- What knowledge and abilities do we intend that students acquire? Do they have the opportunity to do so? Are they successful? At what level? Is that level good enough?
- How can the quantity and quality of student learning be improved? What combination of college and student effort would it take to achieve higher levels of performance?

* *Pat Hutchings, director of the American Association of Higher Education (AAHE) Assessment Forum, and Ted Marchese, AAHE Vice President, "Watching Assessment – Questions, Stories, Prospects," Change, September / October 1990.*

One consequence of assessment has been a new definition of educational quality. Using an assessment model, the best college is the one where students learn the most. Traditionally, superior universities have been recognized by the quality of their inputs, such as faculty degrees, physical facilities, and library volumes. By these traditional measures, small colleges or teaching universities may be regarded as mediocre even if the quality of the teaching and learning are superior. Assessment of learning outcomes provides a more direct method of defining educational quality by examining what and how much students actually learn.

By redefining educational quality, assessment is viewed by many as bringing a new and more meaningful type of accountability to higher education. Attention is focused squarely on the results of education. Educational processes are still recognized as important, but as a means to an end, not an end in themselves. As a result, institutions throughout the nation are increasingly being expected to provide evidence of student learning.

Assessment Interest Is Nationwide

Since the mid 1980s, assessment has become increasingly important nationally as a method to improve higher education's effectiveness and increase its public accountability. Organizations such as the Education Commission of the States (ECS), the National Governor's Association, and the State Higher Education Executive Officers have issued reports or policy statements promoting the use of assessment. The United States Department of Education has established regulations that accrediting organizations must require evidence of educational outcomes. Even the Governmental Accounting Standards Board has recently recommended the regular reporting of assessment data.

Notwithstanding the enthusiasm many groups have for assessment, many educators nationwide remain cautious. Although some institutions have embraced assessment, becoming leaders in its development, other institutions continue to resist it. Some educators feel that outsiders are looking for simple answers to complex questions, and that assessment data will be misunderstood and misused. Also, many educators continue to fear that lawmakers will mandate standardized testing of students.

A stumbling block in discussions about assessment is that it means different things to different people. Some limit the term's usage to measuring student learning gains during college. Others use the term more broadly to include measuring a wide range of student outcomes including knowledge level, retention rates, alumni satisfaction, and job placement. A glossary published by the Education Commission of the States (ECS) broadly defines assessment as

> Any process of gathering concrete evidence about the impact and functioning of undergraduate education. The term can apply to processes that provide information about individual students, about curricula or programs, about institutions or about entire systems of institutions. The term encompasses a range of

procedures including testing, survey methods, performance measures or feedback to individual students, resulting in both quantitative and qualitative information.

States Have a Variety of Approaches to Assessment

ECS recently conducted a survey of state assessment initiatives. The ECS report states that "assessment has arrived as a fact in a majority of states," but that to a large degree, "no two state efforts are alike." Different state approaches to assessment reflect the different conditions and purposes that have existed.

The ECS survey, conducted in late 1989, found that 27 states had formal assessment initiatives in place either through legislation or board policy. Most other states, including Utah, are reported to foster assessment interest in some fashion, but without formal assessment policies. Although state assessment initiatives vary, the ECS survey did identify some common themes: state assessment initiatives are growing in importance, they usually provide institutional flexibility, they usually do not include special funding, and they are more often oriented toward improving education rather than increasing accountability.

Most states allow some flexibility. While most state assessment initiatives allow institutions flexibility in how student learning is defined, some common student outcome reporting may be required. The ECS survey found that 18 of the 27 formal initiatives reported followed the assessment approach pioneered by Virginia and Colorado. These two states require institutions to develop an assessment plan consistent with their own mission, and report annually on results. Thus, educators rather than legislators define how learning or knowledge level is measured. However, the Colorado legislation does require the inclusion of some common data elements such as information on student completion and retention, evidence of post-graduate performance, and information of student and alumni satisfaction.

New Mexico also allows flexibility in some aspects of assessment, but requires the reporting of some common data. The New Mexico commission on higher education is required to submit a "report card" to the governor and Legislature which will allow for institutional comparisons. Legislation requires the report to include data on (1) results of a learner-outcome assessment program, (2) student retention rates, (3) percent of lower division courses taught by full professors, (4) time faculty spend in student advisement, (5) placement data on graduates, (6) longitudinal data on participation rates of minorities, (7) percent of graduate students with in-state, undergraduate degrees, (8) transfer rates from two- to four-year institutions, and (9) rates of placement in remedial programs at two-year schools.

Some states require standardized testing. Although it is rare, standardized testing of all students continues to be the greatest fear of the nation's faculty and administrators. Testing of all students is a way to guarantee a minimal competency level. Incoming students can be tested to identify those who may not have the basic skills to succeed in college. Continuing students can be tested to identify those who have not attained a minimal skill level.

Some states require all incoming students to demonstrate they have the basic skills needed to succeed in college level courses. For example, the Texas Academic Skills Program tests reading, writing, and mathematics skills of incoming freshmen. Students who have not passed the test may still enroll in college; however, they must participate in remediation and may not enroll in upper division courses. The program is intended to help more incoming students graduate.

Although a few states require standardized testing of continuing students, the ECS survey reports that Florida is the only state with true "gateway" examination which students must pass. Florida higher education officials developed the College Level Academic Skills Test (CLAST), a so-called "rising junior" test. All sophomores must pass the test in order to receive an Associate of Arts degree, or to attain upper division status. Reported benefits include enforcement of minimum academic standards, facilitating student transfers among Florida institutions, and an increased commitment by students in basic courses. However, CLAST has been severely criticized for placing so much importance on a single test and for causing a devastating reduction in the number of Spanish-speaking students eligible to continue as college juniors.

Standardized testing is opposed by most educators as misguided and unfair. Educators feel that a single test will never be able to measure all important factors. Furthermore, it is unfair to students to place so much weight on a single test. At least one state, South Dakota, decided to drop a requirement that all students take a standard test. In addition, the ECS survey found some states had considered adopting mandated testing only to reject it as infeasible or inappropriate.

Occasionally, standardized testing is used, not to screen students but to make judgements about institutions. In Tennessee, all seniors must take a common test for schools to participate in a performance funding program (discussed below). These test results are only one of the multiple assessment approaches used by Tennessee to evaluate institutional performance.

Some states include special features. Each state has unique features to its assessment initiatives because its goals or conditions vary. While all cannot be explained here, some are notable for raising issues of higher education funding methods, the relationship between higher and public education, and the need for consumer information.

Although Tennessee has been heavily involved in assessment for many years, its importance has continued to increase. The state's performance funding program rests on assessment results. While in most states an institution's appropriation depends mostly on enrollment numbers, in Tennessee it depends on the quality of an institution's teaching as well as on its number of students. The performance funding program enables institutions to earn a budgetary incentive of up to five percent.

Some states require colleges to tell high schools how well their graduates are prepared to handle college-level work and how these students performed during their first year of college. For example, Texas, South Carolina, and Louisiana have legislatively mandated such reporting. These college-readiness reporting programs may result in more cooperation among high schools and colleges, better prepared high school students, and less remedial education in college.

Assessment may provide data to help explain the benefits of institutions to potential students. For example, an Illinois task force has recommended that assessment reports specifically designed for students, prospective students, and parents be prepared. The reports should provide information on student satisfaction with the institution and data on student success or failure. This consumer information may help those individuals deciding whether or where to attend college.

Assessment Methods Vary With Each Program's Purpose

One reason that assessment techniques differ among states is the various programs' purposes. Many of the major differences among assessment programs stems from the intended uses of the results.

Diane Halpern, in her introduction to Student Outcomes Assessment: What Institutions Stand to Gain, identifies three major categories of assessment models based on the purpose for collecting the assessment data.

1. **Program improvement.** The main feature of this model is that faculty and administrators are expected to actively use the data to help identify and make changes. A wide range of individual or group data may help identify needed curriculum changes. Many states allow institutional flexibility in assessment design to enhance faculty participation and use of assessment results. Faculty involvement in the assessment process leads to a greater commitment to make changes based on the results.

2. **Gatekeeping functions.** The main feature of this model is to ensure basic academic competencies. Generally, students have to pass a standardized test to prove they have the basic knowledge expected of all students or graduates. In Texas, all students are tested for basic college level skills when they enter college; remediation is required until the test is passed. In Florida, all sophomores must pass a competency examination before advancing to junior status.

3. **Budget decisions and accountability.** The main feature of this model is that data are used by legislators or others to make judgements about programs or institutions. In Tennessee, assessment data are a factor in allocating some budget resources. In Colorado, assessment results must be reported annually to the Legislature as an accountability tool. Similar to the program improvement model, a wide range of individual or group data may be collected. However, if data elements and collection processes are designed without faculty involvement, they may be resisted.

Many state assessment initiatives are intended to lead to both program improvement and greater accountability. While some feel that these purposes are in conflict, many do not. Indeed, improving the quality of educational programs through the collection and use of assessment data may be viewed as an accountability process. There is no clear distinction between the type of data collected for an improvement model compared to an accountability model. In contrast, although a variety of tests might be used, a gatekeeping model requires standardized testing to enforce minimum standards.

USHE Has Adopted a Decentralized Assessment Approach

Utah institutions are independently developing their assessment approaches. In the absence of legislative action, Board of Regents and accreditation requirements help guide institutions' actions. These assessment requirements provide a decentralized, institution based approach. While it is early to judge, institutional commitment and progress appears to vary considerably.

The state Board of Regents' 1986 master plan includes some broad policy guidelines related to assessment. However, the regents delegated to institutions the responsibility to develop processes and procedures to assess students and evaluate quality. Institutions have been encouraged to experiment with a variety of assessment tools and procedures. Institutional reports of their assessment system are to be presented to the Board of Regents in 1991 and every five years thereafter. Reports should include decisions and actions brought about or influenced by the system of evaluation.

A second factor that may influence assessment in Utah is accreditation requirements. Regional accrediting organizations have started to require that institutions show evidence of student learning in order to be accredited. Utah's accrediting organization states that institutional self-study should emphasize educational outcomes or results and not be limited to structure and process. Institutions may be expected to provide tangible evidence to show the effectiveness of their general education and major programs.

The regents' and accrediting organizations' requirements provide a very decentralized assessment environment. Each institution may develop assessment methods most appropriate for its role and mission. The regents feel that permitting considerable diversity in how Utah colleges and universities develop and utilize quality improvement measures will help preserve important institutional differences.

Assessment Progress Varies at Utah Institutions

Since the first formal report from institutions on their assessment programs is not due until later in 1991, it is difficult to evaluate the programs now. However, based on a December 1989 interim report (see Appendix II) and our discussions at institutions, it appears that progress on and commitment to assessment varies by institution.

Snow College has undertaken an ambitious assessment effort. With the support of a federal grant, the college has hired an assessment coordinator and is attempting to determine its effectiveness in developing desired student outcomes. Snow College has identified the following desirable outcomes for students:

- thinks lucidly
- communicates effectively
- perceives aesthetically
- learns in independent, self-directed manner
- values quality and diversity in life
- engages in positive and productive life processes

Obviously, testing to determine the college's effectiveness in developing these outcomes will be very challenging, but perhaps very rewarding. A second assessment project, developing a longitudinal student tracking system that follows students during and after college, will also be difficult but valuable. Snow College hopes the tracking system will enable it to monitor the long-term benefits of attending the college.

Weber State University (WSU) has adopted a mission statement calling for graduation based on outcomes assessment. Currently, the institution has faculty committees working on developing general education and major assessment plans. The general education assessment plan identifies desired outcomes, similar to Snow College's approach. For major assessment plans, different desired outcomes need to be developed for each program. Although assessment is not fully developed, progress is being made by requesting student outcome data in periodic program reviews.

In highlighting assessment at Snow College and WSU, we are not implying that the other seven institutions are not committed to assessment. However, other institutions have not progressed as quickly. Two factors that may have contributed to slower progress on some campuses are the five-year reporting time frame set by the regents, and other institutional programs that have taken precedence.

Although the regents' assessment requirement was put into place in 1986, some institutions made little progress for the first few years. With the approach of the 1991 reporting requirement, however, assessment activity seems to be accelerating on some campuses. For example, in 1990 Utah State University (USU) established a five-member assessment committee; it has developed an assessment plan statement of principles which has been discussed with department chairs. Whether the increased progress at USU and other institutions is due to the upcoming reporting requirement, new accreditation requirements, a growing acceptance of and a new commitment to the concept of assessment, or other factors is unknown.

Another factor which may have slowed assessment is that other projects have been more urgent. Devoting effort and funding to assessment takes resources from other worthy projects. Even though assessment may be considered important, more urgent priorities can exist. For example, at Salt Lake Community College (SLCC), student growth and administrative changes have made it difficult to devote a great deal of attention to assessment. At the University of Utah (U of U), an "Undergraduate Initiative" project identified assessment as one way to improve learning. However, assessment is listed as the least urgent of eight proposals to improve faculty and teaching.

Many Legislative Alternatives Exist

The Legislature may choose from a variety of options concerning assessment. These options range from continuing to rely on the education community's efforts to develop assessment to enacting legislation mandating the elements of a statewide student assessment program. If the Legislature is satisfied with the direction and progress that has been made, then it does not need to act. If the Legislature wants to help provide assessment direction or stimulate progress, then it should act. Possible actions include providing assessment funding, initiating a task force to recommend elements of a statewide assessment program, or enacting legislation that directs how assessment is to be implemented.

Any legislative action should be based on a clear purpose. A frequent complaint from some educators in other states has been that legislators have mandated assessment without any clear rationale for doing so. As a result, faculty and administrators sometimes have not cooperated fully in implementing programs. If the Utah Legislature helps to articulate clearly the purposes of an assessment program, then the elements should logically follow and could be left to the higher education community to specify.

In deciding how to proceed, Utah can benefit from the lessons learned in other states. For example, it is widely acknowledged that assessment, especially if legislatively mandated, will meet faculty resistance. However, well-designed programs with well-articulated and widely accepted objectives can overcome this resistance. In December 1989, ECS brought together representatives of seven leading assessment states, including legislators and higher education officials, to discuss assessment as a means for improvement and accountability in higher education. Figure III shows the suggestions offered to state leaders by conference participants.

FIGURE III

ECS CONFERENCE PARTICIPANTS SUGGESTIONS ON HOW TO FURTHER STATE ASSESSMENT POLICY *

- Help articulate what the public and higher education's outside constituents want.
- Determine key goals through a process that builds in two-way communication.
- Expect institutions to evidence movement toward these goals: establish timelines for progress, require progress reports.
- Help with the selection of a few simple indicators.
- Host attention getting and sustaining activities: convene groups to build joint ownership of assessment plans, for example, host conferences at which data and information can be shared.
- Provide financial and technical resources: couple pressure to raise quality with funding for assessment programs, direct funds toward improved performance rather than penalizing lack of performance.
- Interpret the changes that take place on campus to the public, being sure to use data properly.
- Monitor progress. Ask, for example, whether institutions have reallocated funds to general education, whether campus leaders are using assessment information to make decisions, whether people who have helped increase student achievement have been rewarded.
- Be patient, but keep pressing for results.

* *ECS, Assessment and Accountability in Higher Education, 1990.*

Some Potential Legislative Issues

As noted, the primary legislative issue is the identification and statement of the purpose or purposes of assessment. In clarifying the legislative and public aims of assessment some key questions will have to be resolved. The following list, while not comprehensive, shows some issues on which the Legislature could provide input.

1. **Is standardized testing important?** Standardized testing is only necessary in gatekeeping models; otherwise it is optional. Nationally, many educators question the value of standardized testing even though it is widely used as a college admission and placement tool. Utah's Board of Regents stated that the differentiated roles and missions of Utah colleges and universities should preclude the adoption of statewide standardized testing.

2. **Is comparability among institutions desired?** Assessment as it is being developed in Utah is not designed to provide data to compare institutions. Some states think a prime purpose of assessment is to enable comparisons, while other states view comparisons as inappropriate. Institutional officials are generally opposed to making comparisons. If the Legislature considers it important to be able to make comparisons among institutions, then that must be communicated to Utah's higher education officials.

3. **How should assessment results be reported?** The type of reporting needed depends on whether assessment is intended for internal use only or if it is to be released to the Legislature and the public. The Board of Regents' master plan requires that institutions submit reports of their assessment system and actions influenced by it every five years; it is not clear whether actual assessment results will be reported. Many states require annual reports of assessment results to the Legislature or to the public. If assessment results are for lay audiences, reports should be designed for easy comprehension.

4. **How much assessment flexibility is appropriate?** Differing opinions exist about how much flexibility should be allowed colleges and universities in implementing assessment. Allowing great flexibility has the benefit of drawing on the talent and initiative of the higher education community to develop the most meaningful assessment program, and of increasing the

education community's commitment to the program that is developed. However, too much flexibility has the risk that important legislative aims will not be incorporated, and that progress may be slow.

5. Can barriers to information sharing be eliminated? Some Utah institutions report it is difficult to track how successfully their students perform after transferring to other institutions. Some institutions may be reluctant to provide data about transfer students because they feel it may violate the students' privacy. However, the Board of Regents' staff reports that institutions have been directed to provide such information. Some states require that institutions provide information on transfer student success to feeder schools. The Legislature could require that institutions provide data about their transfer students to other institutions or high schools.

6. Should assessment funding be provided? If the Legislature felt assessment funding was appropriate, it would send a clear message that assessment is important. One institution official told us that faculty do not feel the Legislature really cares about assessment, because no funding has been provided and the Legislature funds the things it cares about. However, some legislators in other states have taken the position that extra funds should not be provided for something that institutions should have been doing already, because it is so integral to the educational process. According to ECS, few states have provided special assessment funds. Two examples are Virginia which provides funding to enable institutions to conduct assessment programs, and Tennessee which provides incentive funds based on assessment results.

Recommendation

We recommend that the Legislature choose from the four options described below. Some of the options listed could be used in combination.

1. Rely on the Education Community. The Legislature could rely on the higher education community to develop assessment as appropriate. Even without any action, assessment is likely to continue to grow in importance because of institutions' efforts at self-improvement or because of requirements by the Board of Regents and accreditation organizations. The Legislature could ask for reports of assessment results; any further action could depend on the Legislature's satisfaction with such reports.

2. Provide Assessment Funding. The Legislature could provide funding to promote assessment. Various funding methods are possible. Incentive funding could be provided to institutions for conducting assessment and publishing results. Alternatively, incentive funds could be allocated for the results of assessment. Another option would be to fund assessment projects at all or some institutions. For example, pilot assessment projects could be funded at one community college and at one university.

3. Initiate a Task Force. The Legislature could establish a task force to evaluate possible assessment approaches for the state. Such a task force would have access to the first USHE assessment report due in 1991. If the Legislature identified public policy goals for an assessment program, a task force might help identify how those goals could be best accomplished.

4. Enact Legislation. The Legislature could enact legislation to require assessment programs in very general or very specific terms. For example, the Legislature could require that assessment results be reported annually in a public report. Required reporting of assessment results is generally accepted by educators to be appropriate as long as assessment details are not mandated. However, if the Legislature wants to ensure minimum elements of assessment programs, then legislation should specify those elements as well. A risk of legislation specifying assessment details is that it could result in a backlash on campuses. Legislation to help eliminate barriers to sharing assessment data among institutions or with high schools could also be considered. Alternatively, a legislative resolution might be used for the same purposes.

Chapter III
MORE FACULTY WORKLOAD DATA COULD BE PROVIDED

Compared to assessment, faculty workload measurement embodies a more traditional concept of accountability by focusing on resource use rather than student outcomes. In recent years, national interest and activity has shifted from workload measurement to assessment. While the Utah Legislature could direct the Board of Regents to report regularly on faculty workload, the need for and purpose of workload reporting should first be clarified. Obtaining better faculty workload information will require considerable political and administrative effort to overcome the barriers which now limit its availability.

We initiated a review of faculty workload issues because of a legislative request for an audit of faculty with an emphasis on classroom hours and actual research activities. In part to assist us, the Board of Regents' staff recently compiled a special report on faculty workload (see Appendix III), which includes data on teaching loads, total faculty workload, and institutional productivity. The workload report shows many differences in teaching loads among USHE institutions that may be important to legislators or the public. If that type of information is useful, the January 1991 workload report should be considered only as a starting point because the accuracy and completeness of its data can be improved. However, legislators may decide that better workload data is not needed.

The Board of Regents' staff recognizes that better workload data could be provided if more time and resources were devoted to doing so; however, they do not feel workload reporting is worthwhile. Therefore, regardless of any concerns about quality of the data now available, we feel the Legislature needs first to decide whether workload information is useful enough to be reported regularly. If it is, attention should be turned to improving the accuracy and acceptance of workload information within higher education. Depending on how important a purpose workload data serve, the Legislature can decide whether it is worth the effort to require a reluctant higher education system to provide it.

Should Faculty Workload Data Be Reported Regularly?

Whether more and better faculty workload information is needed depends on the purposes it would serve. Possible uses for better information would be to help the Legislature make decisions and to enhance public accountability. A workload report could provide a basis for better legislative and public understanding of faculty workload; it could help resolve recurring questions about how hard faculty work or how many hours they teach. On the other hand, additional workload reporting requirements could end up being a costly exercise that resolves nothing; legislators may conclude that workload reporting is unnecessary.

Value of Faculty Workload Reporting Is Uncertain

It is not clear how legislators or the public would use faculty workload information. Perhaps workload data would be important to someone deciding where to attend college or to a legislator evaluating a budget request. Ultimately, only the users of workload information can judge its value to them.

USHE reports that the workload report in Appendix III was hastily prepared, and that some of the data included may not be reliable. Nonetheless, analyzing the data which is provided should at least indicate whether this type of information is potentially useful. For example, legislators need to judge whether the following information would be useful to them or their constituents.

1. An average teaching assistant at USU teaches 163 percent more credit hours than one at the U of U.
2. Faculty at Dixie College work 24 percent more hours per week than faculty at SLCC.
3. Faculty at Utah Valley Community College (UVCC) spend 65 percent of their instructional time in classrooms or other supervised settings, faculty at College of Eastern Utah (CEU) only 39 percent.
4. Despite their greater research responsibilities, regular faculty at USU teach more credit hours than those at WSU.
5. Average class sizes are much larger at WSU than at Southern Utah University (SUU).
6. CEU's student-faculty ratio is 15 percent lower than the ratio at any of the other four community colleges.

Although the above statements are based on the USHE faculty workload report in Appendix III, they may not be true. It may be that the quality of available workload data is not good enough to draw comparisons among USHE institutions. In fact, a great deal of additional effort may be needed to obtain better and more complete data.

Considerable political and administrative effort may be required to obtain comparable workload data for all nine institutions. Whether such an effort would be worth the cost depends on how important the information is to legislators and the public. Workload data do provide a basis for users to ask questions of and obtain explanations from the higher education community. However, even if comparable data for all institutions did exist, they would not address the issue of how much faculty should teach.

Legislature Should Decide If Faculty Workload Reporting Is Needed

Perhaps institutions should not be asked to provide better faculty workload information. Student-faculty ratios are already regularly available in the annual USHE data book; that information may be adequate for legislative and public needs. In addition, the difficulty of measuring some components of workload is a valid concern. Furthermore, it may be that examining workload information would undermine institutions' ability to manage resources for maximum productivity.

Instead of monitoring faculty workload, the state could simply provide a funding level and allow institutions to determine their own faculty levels and teaching loads. In fact, institutions now have great flexibility in managing faculty and other resources. Each institution makes trade-offs between competing demands on resources, such as between reducing teaching loads and increasing compensation. For example, the U of U has recently been guided by a philosophy of reducing the number of faculty and staff in order to reallocate those resources to the most pressing needs of the university. The Legislature could decide workload monitoring is not important because resource allocation decisions are an institutional prerogative.

If legislators want better faculty workload reporting, they will have to push hard to get it. The higher education community will not regularly bring forward such information unless required to do so. Legislators must decide if the value of additional workload information is worth the cost and controversy of getting it.

Obstacles Limit the Availability of Faculty Workload Information

We found obtaining faculty workload information to be very difficult. The Board of Regents' staff does not attempt to collect workload data, although it does compile student-faculty ratios as a productivity indicator. Within an institution, departments may measure workload very differently. Although common quantitative data are generally used to measure teaching loads, varied and frequently qualitative data are used to measure nonteaching loads. In addition, educators were cautious about providing us with information. For example, institutions were reluctant to provide us information about individual faculty members' workload on the grounds it would violate their privacy.

At least three types of obstacles limit the availability of faculty workload information. First, faculty workload is difficult to measure, especially the nonteaching components. Second, workload management is very decentralized; little common information is centrally collected. Third, educators are reluctant to share what information does exist; they feel it is likely to be misunderstood and perhaps misused by others.

Faculty Workload Is Difficult to Measure

The diversity of faculty workload makes its measurement difficult. Faculty workload is usually categorized into teaching, scholarship or research, and service. In addition to time spent conducting classes and laboratory sessions, faculty teaching duties include preparation, grading, and student advising activities. Faculty research or scholarship activities contribute to the creation, understanding, and application of knowledge; time may be spent in a wide variety of activities including laboratory experiments, field explorations, and library studies. Service activities may benefit the faculty member's institution, community, or profession; examples of service include sitting on college governance committees, unpaid consulting activities, and editing professional journals.

The teaching workload component is the most amenable to measurement. Institutions may track how many credit hours or contact hours each faculty member teaches. In fact, credit-hour data must be part of each institution's data base because that information is used to measure student progress towards graduation. Contact-hour information is often collected because credit hours do not indicate actual time requirements; for example, a three-credit-hour course might actually meet for five hours each week. Thus, contact hours include the time faculty spend with students each week in classrooms, laboratories, or other supervised settings. However, preparation, grading, and student advising time is not included in either credit-hour or contact-hour measurements.

Scholarly and service workloads are more difficult to measure because no common information is collected as it is for teaching loads. Scholarly and service efforts vary greatly and their measurement does not have to be part of an institutional database, as credit-hour data must be. Institutions may collect information on how many hours per week faculty devote to scholarship and service. However, faculty do not keep time sheets, and may not work a standard day. Estimates by faculty of how much time their scholarly and service activities take are not verifiable and may not be reliable.

The lack of good indicators of scholarly and service workload does not invalidate an examination of teaching load data. However, it does require a recognition that teaching loads should vary because scholarly and service loads vary. On average, teaching loads at USHE institutions should be lowest at the two teaching and research universities, highest at the five community colleges.

Higher Education Management Is Very Decentralized

The decentralized management structure of higher education is another obstacle to monitoring workload levels. Faculty deployment decisions are made at the departmental level rather than at the institutional level. The decentralized structure enables administrators familiar with the quantity and quality of each faculty member's work to adjust teaching assignments for course needs and for faculty ability or needs. Because workload management is decentralized, administrators develop a wide variety of workload indicators for their own use in making faculty deployment decisions.

At universities, department chairs monitor faculty workload in whatever methods they feel are appropriate for their disciplines and faculty. Of course, in doing so they need to use methods that faculty accept as equitable. Some factors considered in various departments include the number and level of courses and students taught, the amount of research funding received, the number and quality of publications, the number of papers presented at conferences, the type and prestige of journal editorships, the number of public readings given, and number and type of committee memberships. Overall, a variety of quantitative and qualitative factors may be considered.

Some community colleges have developed workload monitoring systems based on the concept of a 40-hour work week. For example, SLCC has a form that is used to calculate how many hours of work are required to complete a faculty member's teaching and nonteaching assignments. The form may be used to compare different faculty members' workloads or to determine if additional payment for overload assignments is warranted. However, it appears that many faculty at SLCC do not complete the form because they are not required to do so by their departments.

Educators Are Reluctant to Provide Workload Information

A third type of obstacle limiting the availability of workload information is the higher education system's reluctance to provide it. Although educators consider faculty workload to be a greatly misunderstood issue by the public and the Legislature, they do not seem to feel that more information can help those groups understand the issue. In fact, requests for workload data are frustrating to many educators because they feel that what faculty do simply cannot be measured in a way that would be meaningful to outsiders.

Throughout the nation, faculty and administrators feel the public has little appreciation for what faculty do. Sensitivity to workload issues has been heightened in Utah by the political environment. Faculty teaching loads were an issue in Utah's 1990 election: proponents of Initiative A claimed that at least part of the reduction in revenues from eliminating sales tax on food could be offset by raising university teaching loads from six to eight hours per week. The higher education community felt it was being unfairly attacked by outsiders who did not understand the issues involved. Higher education officials feel increased teaching loads would harm Utah's institutions, negatively affecting both student learning and faculty productivity.

Faculty workload remains a very sensitive subject within the higher education community. In some instances, educators fear the motives of those asking for workload information, feeling that it reflects a desire to increase teaching loads. Yet, regardless of why workload information is wanted, educators are reluctant to share data with outsiders. They are concerned that individuals who do not appreciate that available workload information provides an incomplete measure of faculty efforts will misunderstand and perhaps misuse the data.

Available Faculty Workload Information Raises Many Questions

Because of the obstacles discussed above, limited information about faculty workload or productivity is available. Student-faculty ratios are the primary information which is regularly available. In addition, the Board of Regents' staff recently compiled a faculty workload report that provides additional data not usually available. Since most information only measures teaching efforts and not scholarly and service activities, however, it must be interpreted cautiously.

Our interpretation of available information is that it provides a confused picture of faculty workload. While some historical and national data indicate that system wide the workload is very high and increasing, other historical data do not confirm that judgement. In addition, comparisons among USHE institutions show some unexpected variations, even after considering their different missions. Actually, we suspect that many of the questions raised by workload data result from inaccurate information rather than real workload variations among institutions.

The USHE faculty workload report (see Appendix III) summarizes the available information for each institution. Table I provides teaching load data for different types of faculty. Table II provides a faculty activity report showing the average hours per week devoted to each workload component. Table III shows the number of full-time equivalent (FTE) faculty, student-faculty ratios, and student credit hours (SCH) per faculty member. The information in Table III is collected on an ongoing basis and summarized in the annual USHE data book. However, the information in the other two tables is not generally available.

Workload data need some basis of comparison to be interpreted. Educators are frequently uncomfortable with comparisons; complicating factors always exist. Historical comparisons are complicated by changes over time. National comparisons are complicated by differences among states. Comparisons among USHE institutions are complicated by their varied roles and missions. Nonetheless, comparisons which are carefully drawn will either illustrate a true relationship or indicate that data are incorrect.

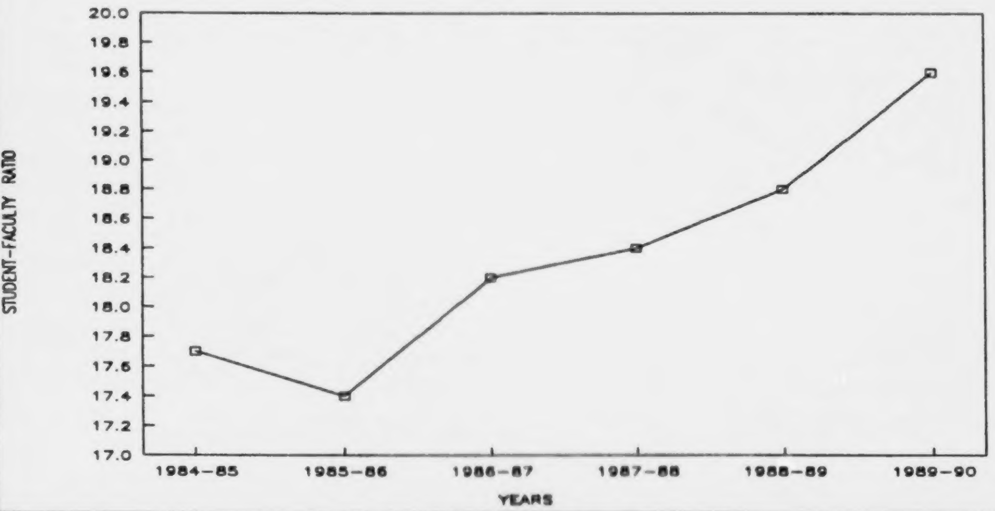
Systemwide Comparisons Indicate Workload Is High and May Be Increasing

Some historical and national comparisons indicate that faculty workload is increasing from an already high level. The upward workload trend may be inferred from historical student-faculty ratios. A high workload level may be inferred from national information provided by USHE. However, data from a 1978 workload study do not confirm an increasing workload.

Student-faculty ratios have increased since 1984. Figure IV shows how the ratio has changed over the past five years for USHE as a whole. Overall, the ratio has increased by 11 percent, indicating that teaching loads have increased since 1984-85. During the past five years, the number of FTE students has increased by 11.7 percent, while the number of FTE faculty has increased by only 0.5 percent; apparently, more students are being taught by about the same number of faculty. These data indicate that workload has increased, but do not indicate whether its current level is too high, just right, or too low.

FIGURE IV

USHE STUDENT-FACULTY RATIO HISTORY



Although very little national data on teaching loads are available, they tend to indicate that workload levels are high. Because more current national data are not available, the USHE faculty workload report compares Utah teaching loads to 1978 national averages from the Carnegie Commission on Higher Education. The USHE report also cites the American Association of University Professors 1970 recommendation on teaching loads. USHE institutions generally meet or exceed these national averages.

Data from USHE's 1978 workload study do not confirm an increasing workload. In general, both the 1978 and 1991 studies report a long work week; but, the more recent data show fewer hours in both the instructional component and in total. However, because they do not know how the 1978 data were collected, the Board of Regents' staff do not feel the older data should be compared to the more recent data. Credit-hour data from the 1978 report also does not confirm a growing teaching load. In 1978, a weighted average of 10.5 credit hours per faculty was reported for the U of U and USU combined. The 1991 report shows a lower weighted average of 9.7 credit hours for all types of faculty or 10.2 credit hours for regular faculty only for those two universities. At USHE's other types of institutions, weighted average credit-hour loads appear to have increased somewhat.

Institutional Comparisons Show Some Surprising Differences

Comparisons among USHE institutions show how workload levels vary in Utah. While many of the variations follow expectations based on institutional types, others do not. In fact, the data indicate both significant variations within institutional types and unexpected differences among institutional types.

Workload data in each of the three tables in Appendix III enable comparisons among USHE institutions. Data may also be compared between tables to discover institutional relationships. Since most data measure only teaching loads, comparisons must be drawn with an appreciation of how teaching loads are supposed to vary among USHE institutions. It is especially important to recognize expected differences among USHE's three types of institutions, which are described in Appendix I.

Teaching Load Comparisons. The teaching load data in Table I of Appendix III show some surprising differences within institutional types. For example, although regular faculty at USU teach significantly more credit hours than those at the U of U, they take fewer contact hours to do so. The ratio of contact hours to credit hours for regular faculty is 1.2 at USU and 1.7 at the U of U. Also, teaching assistants at USU teach 15 credit hours per FTE, while those at the U of U teach only 5.7 credit hours. Similarly, wage-rated FTEs, which are part-time faculty converted to an FTE basis, teach many more credit hours at USU than at the U of U. Perhaps the character of instruction provided at these two universities is very different.

The teaching load data for WSU and SUU are very interesting. The two institutions are more like other types of institutions than they are like each other. Regular faculty at WSU teach fewer credit hours than those at USU, while regular faculty at SUU teach more credit hours than those at Snow College, CEU, and UVCC. According to the Board of Regents' criteria for institutional categories, faculty at WSU and SUU should have teaching loads higher than those at USU or the U of U and somewhat lower than those at community colleges.

Looking at the community college data, it is odd that wage-rated FTEs at Snow College teach much less than Snow College's regular faculty or other colleges' wage-rated FTEs. Also, it is notable that CEU and SLCC cannot provide data for wage-rated faculty and SLCC cannot provide credit-hour data for regular faculty.

Faculty Activity Report Comparisons. The faculty activity data show the average hours per week worked by faculty varies from a low of 43.7 at SLCC to a high of 56 at SUU. Faculty at seven institutions work over 50 hours per week; these data are comparable to national studies which show that faculty report working about 55 hours per week. However, faculty at UVCC and SLCC work considerably fewer hours than other institutions; each reports less than 45 hours per week. In fact, faculty at Dixie College work 24 percent more hours than faculty at SLCC. Assuming the data are true, a far greater work effort is being made by faculty at Dixie College than by those at SLCC.

Most of the data showing how time is allocated among various activities follows expectations. For example, scholarly effort is greater at the U of U and USU than at other institutions. However, a few of the results are surprising. For example, faculty at the U of U devote as much time to instruction as faculty at UVCC. Also, faculty at UVCC devote a substantially higher percentage of their time to noninstructional activities than do faculty at other community colleges.

Student-Faculty Ratio Comparisons. Student-faculty ratios vary from a low of 15.6 at the U of U to a high of 25.2 at SLCC. Interestingly, CEU's ratio is much lower than the other community colleges' ratios; it is even lower than WSU's or SUU's ratio. However, it is difficult to compare student-faculty ratios without considering the type of instruction being provided as well as the institutions' missions. For example, within the community college group, lower ratios would be expected at a college emphasizing vocational education, higher ratios at a college emphasizing general education.

The Board of Regents' staff has developed a formula that may be used to determine a standard or expected student-faculty ratio for each institution. The formula was not developed to provide a basis to compare ratios among institutions; it is intended to provide a basis for estimating funding needs at institutions. Nonetheless, the formula calculates how many faculty are needed at each institution based on average teaching load expectations. Teaching expectations vary by three types of institutions, six discipline clusters, and five levels of instruction.

Figure V shows a comparison of each institution's actual student-faculty ratio with a standard provided by the formula. The comparison provides a method to judge the relative workload of the institutions. According to the formula, the system student-faculty ratio is 9.7 percent higher than it should be. However, the range of actual ratios compared to the formula value is from 4.7 percent lower than expected to 32.1 percent higher than expected.

FIGURE V

COMPARISON OF ACTUAL AND FORMULA STUDENT-FACULTY RATIOS

Institution	1989 - 1990 Actual Student-Faculty Ratio	1989 - 1990 Formula Student-Faculty Ratio	Percent Actual is Over or Under Formula Ratio
University of Utah	15.6	16.4	(4.7) %
Utah State University	19.6	16.7	17.5
Weber State University	22.2	18.9	17.3
Southern Utah University	20.9	20.1	4.4
Snow College	24.2	21.8	10.8
Dixie College	24.0	20.8	15.7
College of Eastern Utah	20.4	19.2	6.4
Utah Valley Community College	24.6	19.8	24.1
Salt Lake Community College	25.2	19.1	32.1
USHE Average	19.6	17.9	9.7 %

Comparisons Between Types of Data. Comparing workload data among the tables in Appendix III provides additional information. For example, dividing an institution's number of credit hours per FTE faculty (Table I) into its number of student credit hours (SCH) per FTE faculty (Table III) provides information about its average class size. If, on average, faculty at WSU teach fewer credit hours but generate more SCH than faculty at SUU, it must mean that average class sizes are greater at WSU than at SUU. Such comparisons should be made with data for the same time periods, which may not be the case with data in the USHE faculty workload report. However, if the data were for the same time period, average class sizes at SUU could be estimated at just over 20 students. Missing data for wage-rated faculty at WSU prevent a direct calculation of average class size at WSU, but it would be about 28 students. Apparently, WSU has a considerably larger average class size than SUU.

The USHE faculty workload report provides information on the number of contact hours per faculty (Table I) and the total number of hours per faculty in all instructional components (Table II). UVCC faculty have 20.8 contact hours and 31.8 total instructional hours; CEU faculty have 17.2 contact hours and 44.4 total instructional hours. Thus, UVCC faculty spend 11 hours and CEU faculty spend 27.2 hours each week in non-contact instructional time, such as preparation, grading, and student advising. UVCC faculty spend 0.5 hour of instructional time outside of class for each hour in class, while CEU faculty spend 1.6 hours of instructional time outside of class for each hour in class. Perhaps the nature of instruction at CEU and UVCC are very different, or perhaps faculty simply categorize their time differently.

Quality of Faculty Workload Information Is Questionable

The validity of any conclusions about faculty workload rests on the accuracy of the data. We do not have enough confidence in the available data to draw definite conclusions about workload at USHE institutions. For example, any or all the differences among institutions discussed above could result from inconsistent methodologies; perhaps the different institutions' data are not comparable.

Because we have not completed a detailed audit of the data in USHE's faculty workload report, we cannot assess whether the data accurately portrays workload at each institution. However, we can raise concerns about some of the data which may account for differences among institutions.

Concerns About Teaching Load Data. We do not understand why some institutions cannot provide credit-hour data for all types of faculty. Credit-hour information must be part of each institution's data base to measure students' progress toward degrees. It seems that such data could easily be compiled for faculty as well as students. However, the way FTEs are calculated, which is discussed later in this chapter, may complicate the compilation of the data.

Some methodological questions are raised by the footnotes to Table I. For example, what estimation methods were used by USU or other institutions? Also, have WSU and other institutions included data from faculty on 12-month contracts in ways that are consistent with each other?

Concerns About Faculty Activity Data. Many educators have expressed concern about the validity of faculty activity reports. If the data are based on estimates provided by faculty without any checks or controls to verify its accuracy, the results must be interpreted with some skepticism. Harold Yuker, in Faculty Workload: Research, Theory, and Interpretation, reports that although faculty members across the nation consistently report that they work about 55 hours per week, many educators consider that figure to be inflated. Until now, the Board of Regents' staff had not compiled a faculty activity report since 1978, in part because of questions about the validity of the data.

Some institutions have adopted workload forms that limit the number of work hours that may be reported by faculty. For example, SLCC has a form which is used to calculate the standard number of hours workload assignments should take; it is a very different method than the traditional self-report. Thus, the reason SLCC faculty reportedly work fewer hours than faculty at other institutions may have more to do with how the data are gathered than with actual work patterns.

Concerns About Student-Faculty Ratio Data. The number of FTE faculty must be accurately counted in order for the student-faculty ratio to be meaningful. We are not confident that the way wage-rated faculty are counted accurately reflects their teaching effort; the count is based not on how much teaching is done, but on how much pay is received. The number of FTE faculty in the wage-rated category is calculated by dividing the amount this type of faculty is paid by 0.66 (or 0.60 at research universities) of the institution's average regular faculty salary. This wage-rated method of calculating FTEs was instituted in 1986 in order to provide a consistent procedure for evaluating resource use across campuses and over time. However, the Board of Regents' staff agrees that they need to review the appropriateness of current procedures.

Some evidence from two institutions indicates that the 0.66 factor understates the effort of adjunct faculty. SUU has not used the 0.66 factor because it does not accurately convert adjunct faculty to FTEs. Instead, the conversion method has been based on adjunct faculty wage rates and full-time teaching load expectations. For the 1989-90 year, SUU reported 26.48 wage-rated instructors rather than 18.59, which the 0.66 factor would have provided. Conversely, although SLCC uses the 0.66 factor as instructed, it appears a lower factor might be more appropriate. If the 0.66 factor is too high, the number of faculty will be understated and the student-faculty ratio will be overstated.

The student-faculty ratios reported by USHE institutions depend directly on the calculation of FTE faculty. For example, if SUU had used the 0.66 factor to calculate faculty as instructed, its ratio would be 22.1 instead of 20.9. The different figures raise the question of what the correct value is. The method used by SUU to count faculty, which seems quite reasonable, results in almost eight more FTEs than the prescribed method. If other institutions used SUU's method, it could have an even greater impact on some of them.

Different methods of calculating FTE faculty may change more than the student-faculty ratio level; it may change the relationship among different institutions' ratios. For example, if SLCC had used a method similar to that used by SUU, it would have lowered its student-faculty ratio by about 16 percent. In contrast, SUU's ratio was changed by only 6 percent. The impact is greater at SLCC because it has a much higher proportion of wage-rated faculty.

Concerns About Data Consistency. Ideally, different types of information converge to provide a similar picture of faculty workload; such convergence increases the credibility of information. Otherwise, inconsistent or incomplete data may raise additional questions.

Some USHE workload information does not seem consistent with other types of information. For example, we were told that adjunct faculty at SLCC are paid $190 per quarter contact hour. Also, the USHE data book reports an $18,142 average salary for SLCC's wage-rated FTEs in 1989-90. Taken together, these data indicate an average of 31.8 contact hours per wage-rated FTE. Unfortunately, SLCC is unable to provide data on contact hours per wage-rated FTE to see if different bits of information are consistent with each other. However, since wage-rated FTEs at other community colleges teach less than 20 contact hours per week, there seems to be some inconsistency.

Workload Information Could Be Improved

USHE institutions could provide better faculty workload information if it is needed. Some of the differences in the data reflect real differences among institutions, but other data may not be comparable. Obviously, the teaching load data are incomplete, and some of the data which are provided are probably inaccurate. If additional data are needed, the Board of Regents' staff will be able to build on and improve its January 1991 workload report. However, a more basic issue for legislative discussion is whether this type of workload data is useful enough to be regularly reported.

The Legislature must decide whether to push for better faculty workload reporting. Obviously, the benefit of the information should be weighed against the cost of obtaining it. Faculty workload information focuses attention on the teaching role, while data for nonteaching roles are generally ignored. Still, available data raise some interesting questions about how teaching workload varies among USHE institutions. Perhaps better data would allow even better questions to be asked. However, obtaining better information would require considerable administrative and political effort.

If the Legislature or Board of Regents directs regular workload reporting, we think the USHE faculty workload report provides a good base to build on. Obviously, we feel the concerns we raised about each type of data in this chapter should be considered by the Board of Regents' staff. Data should be as complete and accurate as possible so that different types may be compared. Also, consideration should be given to providing data separately for each type of faculty. It is awkward to combine all types of faculty from full professors to teaching assistants into a single count of FTE faculty. Furthermore, it may be important to know how many student credit hours are taught by different types of faculty.

Recommendations

1. If it feels the information is valuable enough to warrant the political and administrative costs of obtaining it, we recommend that the Legislature direct the Board of Regents to report regularly on faculty workload.

2. If regular workload reporting is required, we recommend that the Board of Regents' staff ensure that information provided is complete and accurate so that valid comparisons among institutions may be made.

APPENDIX I

USHE INSTITUTIONAL CATEGORIES AND ACCOMPANYING CRITERIA

Type I Institutions -- Teaching and Research Universities

I. Mission.

The institution's mission is to discover, create, and transmit knowledge through **teaching**, **research**, and **service**. The institution contributes to the quality of life and economic development of the state and the nation through education and training programs at the undergraduate and graduate levels and through research and development, and service/extension programs associated with a major teaching and research university.

II. Programs.

A. Instructional Programs. The institution offers baccalaureate programs, advanced professional training, and graduate education of national significance and prominence at the master's and doctoral levels, with a strong emphasis on research to complement the important **teaching role**.

B. Accreditation. National accreditation is a goal for all programs for which this accreditation is available.

C. Research Programs. High priority is given to research and professional programs which make scholarly and creative contributions to the various disciplines and which support master's and doctoral programs of excellence. High priority is also given to research which results in the development and application of new technology and processes with commercial potential.

D. Graduate Organization. Graduate study is a distinct organizational element within the institution.

III. Faculty.

A. Criteria for Selection, Retention and Advancement. Faculty are selected, retained and promoted on the basis of: (1) evidence of effective teaching, (2) research/scholarly/creative contributions, and (3) service and extension activities.

B. Educational Preparation. Regular full-time tenure-track faculty will have earned the appropriate terminal degree for their field and specialty.

C. Teaching Loads and Research Activities. Average teaching loads are expected to be lower than that of faculty in Type II and Type III institutions, reflecting the necessary involvement with research/scholarly/creative activities and graduate education.

IV. **Student Admission.** Students are admitted on the basis of their projected ability to succeed at the institution. Projected ability to succeed is based primarily on past performance, e.g., grade point average, and standardized test scores. Satisfactory completion of prerequisite courses and work experience may also be factors.

V. **Support Services.** The institution provides library services, support services, equipment, and other resources to support undergraduate and graduate programs, and student and faculty research.

Type II Institutions -- Metropolitan/Regional Universities

I. Mission.

The institution's mission is to transmit knowledge and skills primarily through undergraduate **teaching, scholarly/creative activity** and **service.** Scholarly/creative activity is complementary to the teaching role. The institution contributes to the quality of life and economic development of the state and the metropolitan area or region through education, applied technology and vocational training programs associated with a metropolitan/regional university.

II. Programs.

A. **Instructional Programs.** The institution offers associate degree and baccalaureate degree programs and selected professional master's programs. The institution also provides specialized training programs for business and industry. No doctoral programs are offered.

B. **Accreditation.** National, regional, or state accreditation is a goal for programs for which such accreditation is available and appropriate for the institution's mission and role.

C. **Scholarly and Creative Efforts.** Faculty scholarly and creative efforts which complement and support the teaching and regional/ community service and economic development functions are expected.

III. Faculty.

A. **Criteria for Selection, Retention and Advancement.** Faculty are selected, retained and promoted primarily on the basis of evidence of effective teaching. Secondary criteria include scholarship/professional/creative efforts and service which complement the teaching role.

B. **Educational Preparation.** Regular full-time tenure-track faculty will have earned/be working toward the appropriate terminal degrees for their field and specialty. Faculty in applied technology (vocational education) or professional fields also have practitioner work experience.

C. **Teaching Loads.** Average teaching loads are higher than those of faculty in Type I institutions and somewhat lower than those of faculty in Type III institutions. This is due to the institution having fewer graduate programs and less emphasis on research/scholarship than Type I institutions.

IV. **Student Admission.** Students are admitted primarily on the basis of their projected ability to succeed at the institution. Projected ability to succeed is based in part on past performance (i.e., grade point average) and standardized test scores. Satisfactory completion of other developmental courses, prerequisite courses, and work experience may also be factors.

V. **Support Services.** The institution provides library services, support services, equipment, and other resources to support undergraduate programs, a limited number of master's programs, and the intellectual needs of students and faculty.

Type III -- Community Colleges

I. Mission.

The institution's mission is to transmit knowledge and skills primarily through lower-division **teaching** and **training**, and to provide **community service**. The institution contributes to the quality of life and economic development of the state and the community through applied technology and vocational training, general education, and developmental programs and services associated with a comprehensive community college.

II. Programs.

A. **Instructional Programs.** The institution offers certificates, diplomas, and less-than-baccalaureate associate degrees in applied technology and vocational fields and general education, and lower division major transfer programs. Transfer programs are intended to prepare graduates from Type III institutions to begin upper division work at Type I and Type II institutions. Specialized training programs for business and industry are also provided. Where need has been demonstrated and costs are not prohibitive, selected degree programs beyond the associate degree are offered, with Regent approval, on community college campuses by cooperating Type I and Type II institutions.

B. **Accreditation.** Regional, state and some specialized accreditation is a goal for programs for which this accreditation is available and appropriate for the institution's mission and role.

III. Faculty

A. **Criteria for Selection, Retention and Advancement.**

Faculty are selected, retained and promoted primarily on the basis of evidence of effective teaching and training. Other criteria complementary to the teaching role include service and scholarly/professional/creative efforts.

B. **Educational Preparation.** Regular full-time tenure-track faculty will have the appropriate work experience and recognized professional credentials for their discipline and teaching level. To teach courses in general education or other special transfer programs, the master's degree is a standard requirement.

C. **Teaching Loads.** Average teaching loads are somewhat higher than those of faculty in Type II institutions, because faculty are not involved in upper-division and graduate level-instruction.

IV. **Student Admission.** While comprehensive community colleges traditionally have open admissions, all incoming students are tested for course placement and advising purposes. Satisfactory completion of other developmental and/or prerequisite courses, and work experience may also be factors.

V. **Support Services.** The institution provides library services, support services, equipment, and other resources to support lower division programs in applied technology and vocational training and general education, and the intellectual needs of students and faculty.

APPENDIX II

USHE INSTITUTIONAL PROGRESS REPORTS
ON
STUDENT ASSESSMENT PROGRAMS AND ACTIVITIES

Compiled for
Commissioner Wm. Rolfe Kerr
by
Cecelia H. Foxley

December 7, 1989

University of Utah

Introduction

The University of Utah consistently and carefully monitors the quality of undergraduate programs using various measures to assess the rate and quality of student growth. Some assessment procedures are university-wide while others are used at the departmental and/or college level. The Academic Evaluation and Standards Committee has been assigned the responsibility of identifying existing procedures of assessing student progress and program effectiveness and providing a brief accounting of what the UofU plans to do in the next couple of years. In doing so, the Committee has expressed concerns regarding such things as standardized assessment procedures which would encourage "teaching to the test," faculty control of curriculum, student attrition, etc.

Current Assessment Activities

1. Assessment at Entrance.
   The University currently uses ACT or SAT scores, high school grades, and the successful completion of certain high school courses as admissions criteria. Beginning in 1991, admissions criteria will include an Admissions Index which is a value obtained by equally weighing the ACT or SAT composite test score and high school GPA. In addition to those required by the University, individual departments and colleges have entrance requirements specific to their programs. These include the colleges and departments of Business, Civil Engineering, Communication, Communication Disorders, Computer Science, Education, Electrical Engineering, Health Education, Mechanical Engineering, Pharmacy, Physical Therapy, Nursing, Recreation and Leisure, and the Graduate Schools of Architecture and Social Work.

   Some departments require entering students to take placement tests in order to determine the level of coursework for which they are prepared.

   a. Language placement tests in French, German, and Spanish which are based on locally normed versions of former national College Board achievement tests.

   b. Math placement by means of a qualifying test (Math 101) with locally developed norms, indicates whether students have necessary math skills for beginning algebra. A Math 105/106 qualifying test (Cooperative Mathematics Test) is an indicator of whether or not students have necessary skills for intermediate algebra and trigonometry. Math 111 (Descriptive Tests of Math Skills) indicates whether students have acquired necessary math skills for calculus. Entering students who have an ACT score of 25 or higher register for Math 105. Students with ACT scores below 15 register for noncredit Math 50.

c. A writing placement essay is used to guide students to the writing course which will best support their progress in writing. Essays are graded by the University Writing Program. Students with a high school GPA of 3.0 or higher may enroll in writing classes for credit. Students with a high school GPA of less than 3.0 must register for noncredit writing courses. English as a Second Language, another placement essay, determines the level of writing course in which students who are not native speakers of English could be expected to achieve success. Students respond to an assigned topic and essays are rated by the Department of English.

d. Some Liberal Education requirements may be waived for entering students who have scores of 3, 4, or 5 on Advanced Placement examinations and some departments allow credit toward program requirements for students who have passed Advanced Placement courses with high scores.

2. Measuring Difference between Competency at Entrance and Competency at Graduation.

Most departments routinely follow self-assessment procedures by evaluating courses regularly to determine instructor effectiveness, quality and appropriateness of course content and effectiveness of assignments, exams and grading. Constant examination and revision of requirements for programs in which student's major establishes the method for comparing level of competence at entrance with that demonstrated at graduation. In most cases, students who do not function satisfactorily within their chosen majors do not graduate in them. Examples of how some departments measure the difference between competency at entrance and at graduation follow:

a. The Department of Mathematics obtains student evaluations of every class every quarter, processes them, and makes them available to the public. Students can refer to them to help in making scheduling decisions, the department administration can observe faculty teaching performance, and faculty can read them to determine the areas in which they might improve their teaching.

In order to qualify for graduation, mathematics majors must pass the Graduate Record Examination with at least 500 points. A teaching major in mathematics requires at least 450 points. The average point count achieved by graduating seniors is 720.

b. Art History majors demonstrate competency in their major by taking a final comprehensive examination (if GPA is below 3.0) or writing a senior paper (if GPA is 3.0 or better) the quarter prior to graduation. The senior paper may be submitted, along with other application materials, for admission to graduate programs. These are research or research review papers which are the result of self-selected, but faculty approved, topics. Evaluations are base on demonstrated ability to present a convincing case for an idea, substantiated by careful documentation. An effective senior paper is evidence of a high level of abstract thinking, an ability which can be developed progressively through a sequence of courses designed to challenge each subsequent level of students' cognitive capacities.

c. The Department of Computer Science requires that their majors maintain a minimum GPA to remain in good standing, and that they complete degree requirements within three years of acceptance to intermediate status.

d. Several departments distinguish between lower level status and progression into upper division courses. The Department of Chemistry, for example, requires completion of core courses and faculty approval before students can select a specialty area of emphasis.

e. Chemical Engineering limits admission to intermediate status to students who have demonstrated high academic performance in required technical courses.

f. Three departments in the College of Engineering (Civil Engineering, Chemical Engineering and Mechanical Engineering) require that their seniors take and pass the nationally administered Fundamental of Engineering Examination as a condition for graduation. This examination is the first step to licensing as a Professional Engineer in the United States.

g. Statistics taken from the 1987-88 LSAC/LSAT show that University of Utah Prelaw students had a 73% acceptance rate compared with the national rate of 66%. University of Utah premed students had a 75% acceptance rate compared with the national average of 64%.

h. Although the University Writing Program has no quantitative measure of student performance indicating improvement in writing skills between entrance and graduation, there is an indication in student self-evaluations and comments by faculty who teach writing intensive courses that improvement is both observable and significant. The opinions of faculty within departments about the ability of their students to write well in their own disciplines is seen as the best performance measure in this case.

3. Honors Program.

To qualify for an Honors degree, each student in the Honors Program must satisfactorily complete an approved project prior to graduation. This is a measure of students' abilities to structure and work independently on a substantial problem, and is a reliable indicator of the quality of their undergraduate education. The

Honors Program recognizes students who have demonstrated high academic achievement by awarding three scholarships annually. In addition, one Honors Program student received a Phi Kappa Phi Graduate Fellowship in 1988, and one a Rhodes Scholarship in 1987.

4. Prestigious National Scholarships and Fellowships

University of Utah students were awarded the following:

	1986-87	1987-88
Rhodes Scholarship	0	1
Fulbright Scholarships	3	1
National Science Foundation Fellowships	5	6
U.S. Dept. of Education Harris Fellowships for Minorities & Women in Under-Represented Academic Areas	10	9

It should be noted that the preceding list consists only of those students and awards known by the administration; there may be others.

5. Liberal Education.

The Liberal Education Program conducts multiple evaluations to determine quality of courses and teaching. Every class is evaluated by students each quarter. In addition, each course is reviewed by the Liberal Education Program every third year, and graduating seniors are invited to critically evaluate the entire Liberal Education Program every second or third year. Suggestions for strengthening the curriculum have recently been made by the Undergraduate Cabinet, and are considered an additional assessment of the Liberal Education Program.

6. Graduate Council Reviews of Departments.

During regularly scheduled departmental reviews, the Graduate Council routinely examines the purposes, quality, scope, and goals of undergraduate programs. Currently one external reviewer and one internal reviewer concentrate specifically on the undergraduate program of a department under review. Because of increased emphasis on improving the quality of undergraduate courses, an additional external reviewer will, in future studies, focus on this aspect of departmental reviews. By asking departments for clear expressions of philosophy and purpose, the Graduate Council attempts to measure the "fit" between observed performance and stated aims. It then provides useful feedback about faculty performance and student progress.

Future Plans

The following procedures will be used in assembling data for final assessment report by the Academic Evaluation and Standards Committee:

1. Introduction and rationale for producing report: citizens of Utah have a right to expect high quality education from institutions of higher learning within the state. Furthermore, institutions benefit from evaluation of student achievement.

2. The committee has begun to conduct a survey of department chairpersons and support agency directors asking them to provide information about assessment procedures which they follow; e.g., departmental evaluations, graduation statistics, and post-graduation statistics.

3. The Office of High School Services will be requested to provide information about the UofU's relationship with secondary schools and how their assessment procedures may be useful.

4. The Admissions Office will be contacted for information they have about competency levels of entering freshmen; e.g., academic preparation of traditional and nontraditional students who are admitted as entering freshmen, criteria for admission of transfer students from community colleges or other universities, and admission of minority students who do not meet general admissions standards.

5. Remedial Programs will be asked to supply information such as criteria for placing entering students in remedial courses, baseline measures for students, and the role of Educational Opportunities Programs in the admissions process (Upward Bound).

6. A request will be made to the Office of Ethnic Student Affairs for information on the level of academic performance of minority students.

7. Medical and Law School records will help to determine the number of students who apply to those program compared with the number of acceptances based on admissions test (MCAT and LSAT) results.

8. An attempt will be made to determine number of students who drop and/or stop out, and typical reasons for doing so.

9. A student flow chart model illustrating a student's progress through the University experience from admission to graduation will be constructed and included in the report.

10. Upon completion of the process of gathering data and writing a report, the committee will make recommendations for formalizing routine measurement of student achievement at the University of Utah.

Utah State University

Introduction

The various outcome assessment efforts undertaken to date are not centralized,but have been developed and implemented by different departments and units. The professional programs have more clearly defined outcomes assessment measures because of accreditation requirements. The liberal arts programs have not been pushed in this direction by outside agencies,but are now examining various procedures that could be undertaken to assess student achievements. Some departments require portfolios, recitals, or exhibits (e.g., Landscape Architecture, Art, Theatre Arts, Journalism, Interior Design, Fashion Merchandising, etc.). At present the University does not have tools or procedures to assess specific outcomes in general education programs.

One major concern is that student assessment programs require a tremendous outlay in time and resources. The administration of national tests is very expensive, and the development of localized tests is also costly with respect to faculty time. Before the University can become deeply involved in this effort, resources must be provided to acquire administrative staff, and to support the substantive costs of either obtaining or developing the exams that will assess student learning.

Current Assessment Activities

1. Assessment at entrance. Utah State uses the American College Testing exam to assess student preparation for university admittance. The results of this test are used to place students into math, English, and other remedial or advanced classes. The students may substitute SAT scores for the ACT requirement.

2. Value-add Student outcome assessment at the sophomore and/or senior years. A few value-added assessment activities are currently undertaken in specific departments to measure student learning. As noted above, some programs require students to assembly portfolios containing representative works from various stages of their college career. In other departments (e.g., Landscape Architecture, Art, etc.) student performance is adjudicated by professionals from outside the University.

3. Assessment of "cognitive learning" and "skill development". There are a variety of exams (licensing, certification or other) in specific areas that can be used to assess student learning. In some majors, students are required to take and pass the national exam in order to qualify for graduation (e.g., the Fundamentals os Engineering Exam for majors in Civil or Mechanical Engineering, or the National Registration Exam for majors in Dietetics). Other specific national exams are taken by students to assess readiness for post-graduate professional training (e.g., ISAT, MCAT, DAT, GMAT, GRE). In addition, in several disciplines graduation qualifies students to take licensing exams (e.g., Accountancy,

Social Work, Horticulture). Although these exams are primarily for evaluating the learning of individual students, they are also used at USU to assess the effectiveness of programs.

4. Professional or field-related assessment at graduation. Student teaching is required of Elementary and Secondary Education majors. Supervised field practicums and internships are essential to the professional training in several disciplines (e.g., Communicative Disorders, Social Work, Special Education). Internships or other cooperative education opportunities are alternative options for students in a variety of additional majors. Although the primary objective of assessment in these experiences is formative, to benefit the learning of the individual student, the overall performance of students in such programs is an appropriate measure of program success.

5. Periodic, ongoing assessment of student opinions regarding their college/university experience. Utah state annually administers a number of instruments to assess student opinion in a number of areas. These include the following: University Off-campus Life Survey, First-year Experience Survey, Continuing student Survey, Residence Hall Survey, SOAR Survey, Greek Questionnaire, Placement enter Survey, Student Center Survey, Financial Aid Survey, International Student Survey, Minority Student Survey, Advising Survey, Tutor Program Survey, General Registration Survey, and General Registration Evaluation.

6. Assessing the opinions of students who transfer or otherwise leave the institution, including their reasons for leaving. The University conducts exit interviews with all students who withdraw during the quarter. This includes completing a survey which allows them to respond to the effectiveness of academic and student services. Likewise, those students who do not return are mailed the following surveys:

   a. Survey of Students Who Preregistered but Did Not attend
   b. Survey of Students with Financial Aid but Did Not attend
   c. Former Student Questionnaire

7. Career and Job Placement Records of Graduation. The University conducts each year a comprehensive survey of all graduating seniors and graduate students. This includes a reflection of their attitudes toward the academic programs and student services in addition to information on job placement. Likewise, the President, all deans, and many department heads interview graduating students to evaluate programs and services.

8. Longitudinal assessment of student perceptions of their higher education experience five years or more after graduation. The University conducts annually a "Recent Alumni Survey" that gathers an evaluation of programs and services. The survey requests information on the value of a USU education and seeks to know what additional information graduates desire to receive.

Future Plans

Future assessment tools and programs are under examination by a University Assessment Committee. Utah State University will continue to develop ways to improve both incoming and outgoing student assessment. Special state funding referred to in the Master Plan is necessary in order for a comprehensive and detailed assessment program to be established.

Weber State College

Introduction

Current and projected assessment practices at Weber State College flow from the 1988 Mission Statement which sets twin goals of admission "on the basis of demonstrated competence in skills that assure a reasonable chance of success in college and career" and graduation on the basis of "meeting established standards of competence through outcomes assessment.

Current Assessment Activities

1. Traditionally, all students are screened upon admission by means of ACT sub scores in English and mathematics for proper course placement in those subjects. In the near future, admission itself will depend in part on ACT scores. Under a pilot project begun in 1989, students who do not present a score of at least 17 on both sections participate in a program that further assesses reading, writing, mathematics, critical reasoning, and collegiate study skills in order to refine course placement. Follow-up testing of each will occur at the end of the sophomore year.

2. Graduation standards in mathematics and English have been in place for most associate and all baccalaureate degrees for several years. They can be satisfied either by examination or by passing a designated course with a standard final exam (Math 105 and English 112).

3. Each year's graduates are surveyed by the Career Services Office in the fall to determine rates of placement and further education. This office has developed unusually effective follow-up techniques, which for the past three years have enabled the tracking of 90.95 percent of all graduates.

4. Since 1988, the Regents' annual academic program review process has been used to reinforce assessment goals by requiring departments to identify educational outcomes important to their programs; to devise ways to measure students' achievement of these outcomes; and to survey students' satisfaction and track graduates' success. Through this year, 36 departments will have been reviewed under these conditions, four of which have proven already to have effective, comprehensive assessment programs in place.

5. In addition to the above institutional efforts, a broad array of practices are used by individual faculty members and academic Departments:

- Standardized Tests
  - Professional licensure exams
  - Multidimensional assessment
  - National competitions
  - Specific course
  - GRE, LSAT, MCAT,DAT
  - Leadership assessment

- Evaluators other than Instructor
  - Common exam across multiple sections
  - Clinical or cooperative work supervisor
  - Professional accreditation reviewers
  - Multiple graders
  - Business or industry volunteers
  - Student Peers
  - Comprehensive exam in major

- Systematic Alumni Surveys

- Job Placement Records

- Systematic Employer Surveys

- Pre/Post Testing
  - Course-related information
  - Lab skills/problem solving
  - Job satisfaction/critical thinking
  - Program content

- Mastery Testing
- Writing Exercises
  - Addressed to "real audiences
  - Reaction papers
  - Self-reflection

- Speaking
  - Pre/post videotapes
  - Student teaching proficiency screen
  - Class presentations
  - One-on-one interviews

- Integrative Course Projects
  - Case studies
  - Simulations of job situations
  - Senior seminar/research thesis
  - Senior group projects
  - Participative film analyses

- Applications to World Outside Class
  - Classroom teaching projects
  - Applied research for businesses
  - Practice teaching or counseling
  - Dietary self-analysis
  - Public performance
  - Public product

The last four categories included above contain practices aimed less at testing specific knowledge or technique than at encouraging students to integrate a broad range of learning or to refine skills identified as collage priorities. Writing assignments appear in some instances to be replacing traditional exams as evaluative tools, because they tell more about how a student thinks, whether reacting to primary historical documents, applying literary themes to personal daily life, internalizing scientific and social controversies, analyzing sources of error in mathematical thinking, or monitoring personal behavior relative to a healthy lifestyle. Use of videotape as a medium for analyzing oral communication sills is increasing, due to its ability to capture a wealth of otherwise transient data and to record value added over time, not to mention its portability to employment interviews.

Future Plans

In pursuit of the 1988 Mission Statement's goals the Faculty Senate in May, 1989 committed itself to redefine General Education in terms of an agreed set of desired intellectual skills and understanding. The Senate is in the process of (1) reconstituting the General Education program through a "sunset" rule applying to all existing courses, in order to ensure cultivation and assessment of the agreed upon skills and (2) developing a plan to integrate these skills into all major curricula and to assure students' comprehensive understanding of the major at graduation (e.g., comprehensive exam or thesis).

Institutionally, rather than attempt to impose a preconceived assessment from the top, WSC officials have been relying upon the creativity and initiative of faculty to devise and share ways of determining student achievement that work in their own fields of study. As faculty explore the implications for their own teaching strategies of what they learn, the probability of beneficial results from attention to assessment will greatly exceed what could be expected from a uniformly applied requirement.

Southern Utah State College

Introduction

For the past three years, Southern Utah State College has been reviewing the state of student assessment on campus. This review has occurred in conjunction with the institution's strategic planning process, including a refinement of the institution's role and mission and departmental/programmatic roles as they relate to student goals and learning outcomes.

Nationally, as well as at SUSC, there is a trend away from campuswide examinations which are given to all student cohorts at a given point in their studies (end of second year, graduation, etc.). Many faculty are suspicious of such quantitative tests that are given to large numbers of students insofar as they have been administered to this point in time in higher and public education. Such testing methods have tended to focus on "minimal quality expectations," thereby diminishing quality education expectations rather than improving them. Moreover, many still argue that such approaches emphasize "teaching to the test," and do not represent true learning.

There is also a trend away from "quantitative test data collection" and toward "qualitative assessment data assembly." In all too many cases, quantitative test data have been misused from the original design or intent of the test instrument. For example, quantitative tests designed only as "prediction tools" to determine how well students will do at the next level of education have been inappropriately utilized as "quality measures" to determine the value of education just completed.

Current Assessment Activities

At SUSC, the focus is on better utilization of existing data which is routinely being collected rather than designing new testing methods and rather than selecting new points of data collection. The College intends, therefore, not to design new testing techniques, nor to establish new collection points; in lieu thereof, the institution will refine data collection techniques at current student-contact points. Thus, whatever data are presently being collected, should be continued in a consistent, campuswide basis. Four examples of current efforts are described here. Additional examples which are in the process of being refined are included in the Future Plans section below.

1. Surveys are currently being administered to all new students at SUSC through a one-credit hour orientation class which is required of all new students. Variations of this survey have also been used with students who have not come to SUSC after applying for admission, and have been used with students who have dropped out from SUSC. These instruments are valuable in assessing student goals, desires, interests, and compatibility with SUSC's programs. It also helps the College to determine how well we are serving the new students' needs and questions relative to access, cost, placement, and satisfaction.

2. The College has been conducting research relative to students who have transferred from two-year colleges to SUSC. This work has principally focused on the relative levels of preparation of students in the various community colleges and their success at Southern Utah State College. The majority of this work has centered on the grade point averages (GPA's) of the students from freshman to sophomore to junior to senior status at the community colleges and at SUSC, as compared against an internal-control group of non-transfer SUSC students.

3. The Departments of Physical Education and Teacher Education administer a questionnaire to all graduating students and later as a five-year follow-up. These surveys have been extremely useful for determining student evaluations of cognitive learning, skill development, professional or field-related evaluation, and career and job satisfaction.

4. For over fifteen years, SUSC has collected job placement information on its graduates, including occupations of graduates by major area of study.

Future Plans

Questionnaires. While SUSC has been utilizing a variety of questionnaires with students over the years, it is recommended that the College review the questionnaires and revise them in line with reestablished program goals and thrusts on a campuswide basis. These questionnaires should be administered upon entrance to SUSC (freshmen, transfers, etc.), upon exit from SUSC prior to graduation (stop or job-outs, failures, transfers, LDS missions, etc.), upon graduation from SUSC (one- or two-year, baccalaureate, or masters), and at an established period after graduation (five years most likely).

The questionnaire at admittance should continue to analyze student goals relative to program goals and institutional mission. A variety of other factors regarding location, high school attended, and general student demographics may be critical.

For students who exit before graduation, the same questionnaire (or a very similar questionnaire) should continue to focus on reasons for leaving, particularly regarding student failure, noncorrelation with SUSC or program goals, and other stated reasons for exit.

Finally, the questionnaire at graduation should be the same as the one which should be administered five years down the line. This questionnaire should continue to focus on student assessment of SUSC and program academic goals in line with student goals and professional responsibilities. Refinements at each level of questionnaire should assist SUSC in meeting student goals and perceptions. The first questionnaire should be developed by student services and admissions/registration; the second questionnaire by academic affairs.

Program Quantitative Exams. As each program area outlines the goals expected, the faculty should refine the collection and distribution of data from existing quantitative tests which are used to assess student learning in that selected area. Faculty should then take steps to collect and assemble such data for program refinement. Currently, the various departments are using one or more of the following types of exams (or students graduating are taking such tests): GRE (Graduate Record Exam), LSAT (law school requirement), MCAT (medical school requirement), VCAT (veterinary school requirement), CPA (certified public accountant), etc. Each department or program area will define such an exam and sample graduates in a more consistent and quantifiable manner.

Refinement of ACT with Grades in Critical Courses. The College has compared sub score exams in mathematics, English, social studies, and natural science with actual grades in selected critical courses at SUSC. In this manner, referral of students to proper remedial work has been accomplished. This has reduced the failure rate at the College and thereby decreased attrition. This continued evaluation is needed. Thus, the Counseling Center will be requested to continue submitting actual grades in selected courses to correlate with ACT subset scores.

Program and Faculty Review. Every five years, the College is committed to continued evaluation of the academic program in all four schools to the review of the library and continuing education. The refinement process improving these programs is very positive and ongoing. The assessment program of the Regents should be a part of this cyclic review procedure. Each department should include its assessment data as part of the five-year review.

The College also annually reviews all nontenured faculty assessing their progress toward an award of tenure. The assessment is based on teaching, scholarly efforts, professionalism, and service. Such reviews are becoming increasingly rigorous. Moreover, review of tenured faculty also occurs for rank advancement and merit salary increases. These evaluations should continue since they do influence the quality of faculty performance, and indirectly, of student performance.

Skills Classes. The Deans Council shall take action on the general education program at SUSC to advise strongly that general education skills classes (ENGL 101, ENGL 202 or 211, MATH 101, and COMM 101) be taken during the first two years, and preferably, the first year of attendance at SUSC for new freshmen or transfers who have not completed these requirements.

Snow College

Introduction

Snow College uses many forms of assessment. This report describes the assessment of educational achievement at three points along students' educational journey at Snow College:

1. Assessment at entrance for purposes of placement, advisement, and as a means of qualifying for certain programs.

2. Formative assessment as a check on student progress and faculty effectiveness. Formative assessment is ongoing assessment designed to help mold and/or develop the course content and teaching strategies of each class.

3. Summative assessment of courses: to check the "value added" dimension of Snow College programs, to provide data to help with policy and program decisions, and an assessment of graduating sophomores as measured by a pilot National Assessment program.

Current Assessment Activities

1. Assessment at Entrance

   Snow College requires all entering students to take the ACT examination. Sub scores in Mathematics, English Usage and Social Studies (Reading) are used for advisement. Those students entering at times other than the beginning of fall quarter may take the ACT examination at anytime.

   In addition to the ACT, Snow College uses the ASSET test to qualify and place Developmental Education students, and to qualify students for financial aid. It is projected that the ASSET test will be used extensively in the future for advisement and placement of students whose sub scores in the Math and English sections of the ACT fall below a standard score of 16. Scattergrams which compare sub scores on the ACT in Math and English Usage with grades earned in Math 101 and English 101 indicate a need for better advisement and placement.

   Divisions and departments within the College use a variety of assessment instruments to advise, place, and motivate students. some of these are:

   1. Math 100 and Math 101 courses are taught during the same time period. Students are assessed the first day of class work each quarter and monitored for the first two weeks of instruction. Movement of students between these two courses facilitates success.

2. Computer Information System classes are given the final test for the course on the first day of instruction. This practice provides the instructor with base data which is used to structure the instructional program and as the baseline against which growth is measured when the same test is administered at the end of the course.

3. Pretests are given in Business Math, Personal Type, Drafting, Blueprint Reading, and Business Communications classes to assess the sill level of students in the classes. Instructional strategies are then employed to maximize the learning of students.

4. The Division of Social and Behavioral Science uses a structured form for self-evaluation which is completed by each student at the beginning of the quarter and periodically discussed with the instructor during the quarter.

5. All students in Business Management 120, Introduction to Business, are required to do the "Discover Program," a computerized career program which provides accurate information about career requirements and opportunities in various fields.

2. Formative Assessment (ongoing)
Assessment is an ongoing activity in all College classes. Some forms of formative assessment are:

a. Daily quizzes.
b. Personal interviews with students, including both summary evaluations at the end of the quarter and diagnostic conferences during the progress of the course.
c. Personal analysis "essay-type" assignments producing a written summary to be discussed in a conference involving student and teacher.
d. Short-answer, essay questions (both interpretive and integrative responses), topical essays and research reports or "term papers."
e. All faculty as Snow College serve as advisors to students. Frequent conferences, assessment of progress at registration time and early intervention efforts all provide opportunity for formative assessment.

3. Summative Assessment (end-of-quarter, end-of-sophomore year)

Snow College conducts summative assessments of students every quarter for the purpose of assigning letter grades. Some types of summative assessment are:

a. Final Comprehensive tests
b. Term papers
c. An original story, poem, musical composition, etc.
d. A concert, recital, performance in a stage play, an impromptu presentation, participation in intercollegiate competition of speech, drama, or music.

Snow College has also participated in pilot testing of the Collegiate Assessment of Academic Proficiency developed by ACT. The focus of CAAP is academic, targeting the assessment of general education foundational skills typically attained in the first two years of college. CAAP has two main purposes: (1) to help institutions improve their instructional programs by measuring and reporting group progress and performance, and (2) to determine the level of educational development for individual students. CAAP is designed to measure selected academic skills which are foundational for performance in upper level courses and are essential to the general academic college core curriculum: reading, writing, mathematics, critical thinking, and science reasoning.

Future Plans

Snow College has been granted money by the U.S. Department of Education under Title III to develop and implement the institutional capacity to assist students to succeed. This program is addressing three major problems at Snow College: (1) student retention, (2) developmental or remedial courses for underprepared students, and (3) adequate support services for nontraditional high-risk students. Assessment is critical to these three problems. Money from this grant is being used to:

1. Install state-of-the-art computer capability to provide faculty advisors rapid access to student information, including: classes completed, grades received, results of placement tests, and progress toward graduation.

2. Provide Snow College faulty with the skills and understanding of outcome-based assessment. To accomplish this, Snow College is working closely with personnel from Kean College of Union, New Jersey. Kean College has completed a three-year strategic plan called Excellence and Equity. The primary focus of that effort is the assessment of student learning and development in all academic programs. Kean College personnel will be conducting inservice activities in Ephraim for Snow College personnel in December.

3. Hire an assessment counselor to coordinate the assessment activities at Snow College.

It is expected that a comprehensive in-take assessment program for all entering students, an appropriate advisement and placement program for all students on a continuing basis, and a program of outcomes assessment which will be implemented school-wide will help Snow College be a premier teaching institution.

Dixie College

Current Assessment Activities

Dixie College uses the following instruments and/or criteria to assess students as they come into the institution:

1. The ACT test
2. The DCAT (Dixie College Admissions Test) -- this test is used if the ACT test has not been taken.
3. High School Grades
4. A self-assessment questionnaire allowing students to give non-quantitative input into the levels of math, English, and reading that they feel competent to handle.

Information on each of the above is compiled into a profile for each student and a "likelihood of success" coefficient is computed. This allows advisors and counselors sufficient data to place students into the course levels appropriate for their background. Dixie faculty are in the process of developing a method of obtaining a sample of each entering student's writing, with the thought that this would be the "best" indicator of composition readiness.

As students leave Dixie College, the following outcomes assessment tools are used in an effort to measure their capabilities:

1. College Grades
2. Department Exams (Some departments use national exams.)
3. Vocational Proficiency (Criterion referenced, End-of-Program)
4. Student Questionnaire (mostly affective domain questions)

Future Plans

This current year is an exploratory year for developing a campus-wide assessment program at Dixie College. Staff and faculty are piloting several nationally normed exams and are attending workshops and conferences (some sponsored by the Utah System of Higher Education) regarding assessment. The goal is to implement a comprehensive assessment model during the 1990-91 academic year.

College of Eastern Utah

Introduction

The College of Eastern Utah uses a wide range of student assessment tools. These include instruments to measure academic levels of achievement for advisement and placement purposes, interest and attitude studies, tests to measure aptitudes, cognitive process measures, personality tests and exit examinations to measure the effectiveness of general education and also field related assessment of completers.

Current Assessment Activities

1. Student Placement and Advising. Tests for placement purposes are administered by the CEU Counseling and Testing Center. The ACT test is currently required of entering students who are recent high school graduates. This test is primarily oriented to students currently completing high school. In lieu of the ACAT, students may opt to take the APCC (Advanced Placement for Community Colleges) test. This test has proven to be effective for assessing and placing re-entry or nontraditional students.

2. Other tests available at the Test Center. The Counseling and Testing Center administers a variety of personality, interest, cognitive process and personality tests, e.g., GED, CLEP, WRAT, Strong Campbell Interest Survey (SCII), Career Occupational Preference System (COPS), Work Values Inventory, Career Ability Preference System (CAPS), and Watson-Glaser Critical Thinking.

3. Outcomes Assessment. Student outcomes are measured within departments using some type of "value added" procedure to determine the effectiveness of instruction. These field related assessment procedures are discipline-specific and vary from department to department.

4. Career and Job Placement Records. Career and job placement records are collected and maintained in the office of the vocational director in conjunction with the placement office for all vocational programs. The process for collecting and maintaining such records has been improved and strengthened this month as a result of a recent State Vocational Accreditation.

5. Student Opinion Surveys. Opinion surveys of prospective, current and past students are currently underway in conjunction with a Northwest Accreditation self-study process. In the past, these studies have been somewhat sporadic due to inadequate staffing and support in the institutional research office. A recent appointment in that office should assure a more complete approach to institutional research.

Future Plans

1. Assessment of General Education. Assessment of the effectiveness of general education is currently being studied and revised at CEU. A subcommittee of the Curriculum and Instruction Committee is studying the issue and has made two interim reports on their findings. Their tentative recommendations are to use a purchased, nationally normed process that is of sufficient modularity to allow for proper adaptation to the uniqueness of CEU. Care is being taken to assure that the method adopted does not, in a defacto way, dictate institutional mission and goals. The CAAP assessment program is the initial favorite of the committee members. However, further study is warranted before formal adoption. The CAAP is an ACT product that will be nationally normed. It appears to have sufficient modularity to allow for local adaptation.

2. Longitudinal Student Assessment. Collection of data for longitudinal analysis of student perceptions of their higher education experience continues to be a problem not only for CEU but the system as a whole. CEU officials are hopeful that the pending upgrade in computing capacity and also potential development of the appropriate software will help achieve systemwide solutions. CEU officials are also interested in a more regular and systematic feedback from senior institutions as to the success of their transfer students. Although some information has been received regarding the success of CEU transfer students, the information has been incomplete, inadequate and sporadic.

Utah Valley Community College

Current Assessment Activities

1. Preassessment/Placement Activities. All* new and transfer students entering UVCC for the first time are currently required to complete an assessment of basic skills prior to enrolling in classes. The assessment covers language, math, and reading skills using two subtests of the ACT Asset, the Degrees of Reading Power, and a locally developed math placement test.

   Students are provided with a personalized printout of their results and required to meet with advisors prior to registration. Advisors review assessment results with students and make appropriate course placement recommendations. However, students who earn low scores are not required to take recommended developmental or remedial courses as a part of their educational program.

   Some departments provide students with a preassessment of skills before placing them in a sequence of courses. The formality of these assessments for placement in programs such as typewriting or welding vary widely but meet the needs of students and the departments offering the education or training.

2. Outcomes Assessment. UVCC is currently participating with American College Testing (ACT) in the development and pilot testing of the Collegiate Assessment of Academic Progress (CAAP). The CAAP is intended to provide a method to measure the "value added" effects of a college curriculum in any of five areas (writing, reading, mathematics, critical thinking, and science reasoning). UVCC is piloting instruments in writing, mathematics, and critical thinking with entering freshmen and graduating sophomores with an Associate of Arts or Science Degree.

   Of course all courses have an outcomes assessment, or several of them in the form of course examinations including final exams. These assessments do not, however, have evidence of "value added." Since no formal measurements are taken in most courses at the beginning of the experience, formal documentation of what the student knows about the subject when entering and what is actually added in the class is not possible presently. Faculty do know what each student knows or is able to do at the conclusion of their courses.

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*Students taking six credits or less are not required to take the assessment, but are encouraged to do so if they intend to enroll in an English or mathematics class. Transfer students who have taken Freshman Composition and Elementary Algebra with a C grade or better, and new students who score well on the ACT are waived from assessment.

Future Plans

UVCC will continue participation with ACT in the development of the CAAP. College officials are vitally interested in the findings of this outcomes assessment effort, both in what is learned about the process and the instruments and in what the results reveal about what has happened to students during their experiences at UVCC.

Pockets of action on classroom research will continue where faculty have their own personal interest in learning more of what is being accomplished in their classrooms and laboratories. Such study will be encouraged.

It is expected that the new interest and attention being given to assessment and accountability will be monitored closely and responded to in an appropriate manner at UVCC. The intrinsic value of assessment and what it can offer to improve educational programs is appreciated. UVCC will be an interested and involved partner with educational movements and with other state institutions in the area of assessment.

Salt Lake Community College

Introduction

Salt Lake Community College is involved in student assessment activities for incoming, continuing, graduated, and nonreturning students through Student Services, the four academic schools (Business and Technology, Humanities and Sciences, Occupational Education, and Continuing and Community Education), the Office of Planning and Research, and 39 Program Advisory Committees.

Current Assessment Activities

1. Assessment Tools for Educational Planning

All incoming students fill out a questionnaire which is part of the admissions form, indicating their educational background and their academic plans. The students are then individually interviewed by admissions counselors who use the information on the form to recommend initial placement testing and course registration.

The Assessment Center of Student Services offers the following tests:

a. As part of matriculation, all students are required to take a college placement exam, the ASSET, produced by American College Testing. The ASSET determines students' readiness for college course work and helps them select classes which will strengthen their basic skills. In lieu of the ASSET, students may present recent ACT (American College Testing) scores which are then used for placement, most notably in the math area.

b. For entrance into the Writing Program on campus, students are required to write a placement essay which is scored by two faculty readers (or three in cases where there is disagreement). Students' scores are kept on electronic file in the Registrar's Office, and the original essays are kept in the Writing Lab. Instructors' class lists are checked against these files at the beginning of each quarter, and all students who have not been placed in a course either by the placement essay or by passing the prerequisite course are asked to transfer to the appropriate course. If students wish to appeal the placement score, the essay is read again by different faculty.

c. The CALT (Computer Adaptive Language Test) is used for replacement of students who are not native speakers of English. The test scores place the students in either the Skills Center Operations beginning through intermediate level English as a Second Language program, in the Developmental Studies Department college preparatory English as a Second Language program, or in regular academic or technical/vocational courses.

d. Students can take any four CLEP (College Level Examination Program) exams from Educational Testing Services/College Board in Humanities, Social Sciences/History, Natural Science, and English to earn up to 50 hours of General Education credit towards graduation.

e. Students who have not completed high school can take the GED (General Education Development) high school equivalency test.

f. The Algebra Placement Surveys, College Board tests of elementary and intermediate algebra, help to evaluate students' knowledge and skills in algebra and to place them in either Math 101 or Math 105.

g. The Business Math 080 test helps to determine students readiness for Financial Math 138.

In the School of Occupational Education, the Skills Center Operations offers the following tests:

a. To assess reading and math achievement, the Center uses the ABLE (Adult Basic Learning Examination), the TABE (Test of Adult Basic Education), and the Stanford Achievement Tests.

b. To assess aptitude, the Center most frequently uses the APTICOM (a computerized battery), the DAT (Differential Aptitude Test), and an in-house color perception test for electronics majors.

c. The Center also uses a work sample system, the TAP (Talent Assessment Program), in which student performance of a task or a project is timed and the quality of the product is analyzed. This system provides in-depth information on job specific behavioral characteristics and aptitudes.

d. Achievement and aptitude tests and work samples are administered for students entering the custom-fit on-the-job training programs at Hill Air Force Base.

e. The ELSA (English Language Skills Assessment) is used to place students who are not native speakers of English into the three levels of English as a Second Language program.

f. The ASSET and GED are also offered at the Skills Center.

2. Assessment Tools for Career Planning

The following tools are available through the Academic Advising Office of Student Services:

a. MY VOCATIONAL SITUATION (MVS) is a vocational maturity inventory form that can be used to help students identify areas of lack of information, barriers they are facing in their career choice, necessary decision-making skills, and things that may be interfering with their decision-making.

b. The MEYERS-BRIGGS TYPE INDICATOR (MBTI) is a computerized program that students can use to gain an understanding of the type of work that might be most satisfying to the student, taking into account the individual's interests, attitudes, and way of doing things.

c. DISCOVER is a comprehensive computerized career planning and information program that enables students to learn about themselves and about the world of work, to learn about over 400 occupations, to match their self-information with occupations, and to plan for ways of acquiring the training or education for their chosen occupations. It also helps with job seeking skills such as interviewing and resume writing. Nontraditional students can use it to assess the impact of career and education on all life roles and learn how to cope with the transitions involved in returning to school or entering the job market.

d. The STRONG-CAMPBELL INTEREST INVENTORY (SCII), and the Self-Directed Search (SDS) are computerized interest inventories that help students match their interest type with compatible work environments by indicating possible occupations that match their likes and dislikes.

e. The CAREER OCCUPATIONAL PREFERENCE SYSTEM (COPS), an interest inventory, identifies interest in 16 Job Clusters and indicates related occupations and college majors for each Cluster.

f. The Skills Center Operations offers a variety of interest inventories, including the computerized career exploration program, CHOICES. There is also a selection of career exploration literature that career counselors can use with students.

3. Assessment Tools for Educational Progress

a. Student performance is assessed by instructors using a variety of methods throughout the quarter. Students in academic difficulty are referred to the Office of Academic Standards through biweekly maintenance lists provided to the instructors by the Registrar's Office. The office then makes mail contact with all referred students to offer assistance and guidance.

b. Grade reports that include quarterly as well as cumulative GPA's are issued to all enrolled students at the end of each quarter. All students who receive less than a 2.0 GPA for the quarter or who maintain a less than 2.0 cumulative GPA are contacted by the Office of Academic Standards and offered assistance to help them recover their academic standing.

c. All students who receive any form of financial aid are screened at the end of each quarter, and students who have below a 2.0 GPA are referred to Academic Advising and are put on contract with the Financial Aid Office to assist them in raising their grades and attaining satisfactory progress.

d. Through the Title III grant, the College has added On-Course, a module in the computerized Student Information System that allows academic advisors to review individual students the courses that have been satisfactorily completed in order to determine what courses the student still needs for graduation.

e. The Skills Center Operations assigns instructional counselors to each training program to assist students with barrier resolution (such as financial aid, child care, etc.), absences, and job survival skills. Despite case loads of 200 students apiece, students are tracked daily by their counselors.

f. The Skills Center Operations offers regular retesting on reading and math achievement tests to students from the Adult Basic Education program to chart their progress.

g. The Skills Center Operations offers the Utah State competency testing to office occupations students just prior to completion of their training program.

4. Assessment Tools for Student Opinions of their College Experience

Every fall quarter the College distributes a standardized student evaluation, the CIEQ (Course/Instructor Evaluation Questionnaire) to all nontenured and all part-time instructors. Tenured faculty are normally evaluated every three years. The instructors and their Division Chairs receive the results of the evaluation after grades have been turned in. The student evaluation is then used for decisions on temporary merit, on rehiring, on faculty development, and on teaching excellence awards. Individual departments and instructors often administer their own personalized evaluation questionnaires as well.

5. Assessment Tools for Student and Employer Opinions of the College Experience

a. In order to evaluate the success rate of the SLCC students who have transferred to other institutions in the USHE, it is useful for the College to be able to obtain information on the academic success of the students at the other institutions. Utah State University is currently providing regular updates on the GPAs of the transfer students from SLCC. The college is receiving information on the number of students who transfer to the University of Utah, SUSC, and WSC but not on the GPA's they maintain at those institutions.

b. The Skills Center Operations is tracking students who have articulated from the Skills Center into other programs at the College to gather information on their academic success.

c. The Office of Planning and Research currently employs four major tools to assess the level of satisfaction with the educational experience at the College:

    (1) The Office has access to the Job Service electronic system which contains a list of employers and who they have hired. They have found that 70% of the College students have been hired within the Job Service system. The office is initiating a phone follow-up of the remaining 30% to see if they are employed.

    (2) The Office sends a yearly questionnaire to all students who have graduated from the College. The questionnaire asks about such things as students' primary objectives in attending the College, the current educational or employment status, and their degree of satisfaction with their courses. If the students are employed, they are asked to volunteer information on their salaries and on their employers' and supervisors' names.

    (3) The Office sends a yearly questionnaire to all students who don't return after fall quarter to determine their reasons for not continuing at the College. The questionnaire looks at such things as the students' primary objectives for attending the College, the principal reasons for not re-enrolling, and the degree of satisfaction with the courses taken.

    (4) The Office sends a questionnaire to all employers identified on the graduate and nonreturning student questionnaires asking them to rate the training received by the student from the College in both personal and technical skill areas and to compare the SLCC student with other employees in terms of preparation for the job.

d. The Skills Center Operations Job Club, the job placement office, tracks all noncontinuing, nonself-sponsored students to assist them with job placement activities. They have found that 70% of the Center's students get training-related jobs. The Club contacts all ex-students and their employers by phone or in person if necessary to conduct follow-up surveys to determine the satisfaction with the training received and the extent to which the employment is related to the training.

e. Thirty-nine programs at the College have active advisory committees composed of members from the community, from business and industry, and from the College's faculty and staff. One of the functions of these committees is to provide feedback on the suitability of the training received and the job success of students rom the College. The College uses this feedback to update, add and/or modify programs to be current with the needs of both the employers and the students. The Advisory Committee system of SLCC has been identified as one of the best in the country. College administrators and business and industry leaders throughout the country have recognized SLCC's system in a variety of exemplary ways.

f. In order to evaluate the effectiveness of training, individual instructors and departments informally keep track of their students' success on the Utah State Barbering Certification exam, on the FAA Air Frame Mechanic exam, and on the Job Service Word Processing and Shorthand Speed tests. Students' scores on licensure exams for nursing are also kept within the departments.

Future Plans

The College Assessment Committee has been actively investigating the use of computer adaptive testing for placement purposes. A recent research activity in conjunction with the Social Research Institute of the Graduate School of Social Work at the University of Utah has studied student preference for paper/pencil vs. computer-assisted tests and is presently compiling the report. It will be used to support the College's decision to either retain the ASSET or move to the CPT (computerized placement test). A Title III grant is available to fund the possible implementation of a computer-based assessment.

The Skills Center Operations is working towards incorporating more career counseling and assessment into the admissions process through evaluating students' goals and providing career testing and counseling.

In recent years, the Assessment Center of Student Services has offered testing facilities to instructors so that students can take all exams for a given course at the center rather than in class. This activity is currently used by a limited number of faculty, but efforts are being made to interest more instructors in this service.

The Office of Planning and Research is investigating the addition of an exit interview to the graduation process to evaluate students' level of satisfaction with their educational experience at the College.

APPENDIX III

USHE FACULTY WORKLOAD REPORT

January, 1991

Introduction

College and university faculty workload is discussed from time to time at the national, regional and local levels with very little agreement as to the definition of what should be included. The reason for this lack of general agreement is the complexity of the role of higher education faculty and the variations between types of institutions, and in some cases between departments within a single institution. One thing is agreed upon, however, and that is most surveys and studies of faculty workload are quantitative, without providing information about the quality of faculty efforts in teaching, research, or service.

The impetus for this study comes from several directions. The State Board of Regents has requested an update from earlier reports. Some individual legislators have inquired about faculty workload in recent months, and the Office of the Legislative Auditor General has recently requested specific information regarding average credit hours taught by faculty at each of the USHE institutions.

Teaching Loads

The most obvious component of faculty workload has to do with the instructional role. A narrow look at this role is the actual time spent in classroom instruction, often referred to as credit hour teaching load. A 12 credit hour teaching load would mean that the faculty member is teaching courses which meet approximately 12 hours each week. Contact hour load is a somewhat broader view of teaching load in that additional hours spent by faculty in the instructional role in laboratories and other supervised settings are included.

Table I shows credit hour teaching loads for USHE faculty by institution and a comparison with national data collected by the Carnegie Commission on Higher Education (CCHE) in 1978. While more current data is not available on the national scale, it is the assumption throughout the higher education community that the numbers remain about the same. CCHE data show national average teaching loads for faculty in teaching and research universities to be 6-7.3 credit hours; for metropolitan/regional university faculty the average is 11-1.2; and for community colleges the average is 15.1. Also, the American Association of University Professors (AAUP) continues to hold to its 1970 recommendation of 6-9 credit hour teaching loads for graduate level instruction and 9-12 credit hour teaching loads for undergraduate level instruction. The institutional data included in Table I illustrates that faculty credit hour loads at USHE institutions are either at or exceed these national averages.

In 1988 University of Utah officials surveyed a group of their peer institutions and found that credit hour teaching loads ranged from 6-8 hours, with an average of 7.5.

Total Faculty Workload

Individuals familiar with colleges and universities recognize that faculty roles and responsibilities are much broader than instruction or teaching. While teaching is the primary role and the one best understood by the general public, faculty members are expected to also be involved in research and/or scholarly or creative activity, and service to the institution and the community. The balance of these other responsibilities varies by type of institution. For example, the USHE Institutional Categories and Accompanying Criteria document approved by the Board of Regents in September, 1991 specifies that teaching loads are expected to be lower for faculty in teaching and research universities than the other institutions because of their necessary involvement with research and graduate education.

The value of research to the educational process itself, to the advancement of knowledge, and to economic development of the state is not well understood by many. Faculty who are current in their fields and specialties bring more to the classroom than those who are not. Those who are involved in creating and contributing new knowledge to their disciplines, and who involve students in this exciting process, make invaluable contributions. Sometimes new technologies are developed and transferred directly to industry, which enhances local, state, and national economies. University of Utah and Utah State University faculty far out-distance their colleagues in peer institutions with their exceedingly successful track record in obtaining research contracts and grants. For example, during 1989-90 U of U faculty members were awarded over $100 million in research grants; USU faculty were awarded over $80 million. The total for the entire USHE system for the same period was over $191 million, which with the commonly used multiplier of 1.7 percent brought a value of over $325 million to the state of Utah.

Table II illustrates the comprehensiveness of faculty workloads by showing the average hours per week faculty members spend in three types of activities: (1) total instructional activity, including scheduled and unscheduled teaching, advising, grading, course preparation, etc.; (2) research, scholarly and creative activity, and professional growth; and (3) service, including institutional service and public service. The total hours spent per week by USHE faculty in performing their responsibilities ranges from 43.7 hours to 55 hours. Again, depending on type of institution, faculty members vary in the amount of time that is spent in each activity.

Indicators of Productivity

Table III shows two common indicators of institutional productivity: the student-faculty ratio and student credit hours per FTE faculty. Again, as expected there are differences based on type of institution. Teaching and research institutions are expected to have a lower student-faculty ratio and lower SCH per FTE faculty than the other two types of institutions; metropolitan/regional universities are expected to have a lower ratio and SCH per FTE faculty than community colleges. These differences are due primarily to the demands of upper-division, professional, and graduate level teaching which require smaller classes and instructional groups, clinical and laboratory supervision, etc. The differences are also due to the varying involvements of faculty in research/scholarly/creativity and service activities.

Other indicators of productivity are found in financial comparisons (see Tab W of the January 25, 1991 Regents' Agenda and Tabs J and M of the Utah System of Higher Education 1990-91 Data Book). USHE institutions have a history of below average appropriations and expenditures when compared to peer institutions. Important parts of this fiscal picture are below average student tuition and fees and below average faculty salaries.

With USHE faculty salaries and total compensation levels falling short of comparison institution group averages by 13 to 27 percent, and teaching loads at or above national averages, Utah college and university faculty should be recognized as being some of the most productive in the country. The question remains: How long can Utah attract and retain quality faculty under these circumstances?

USHE FACULTY WORKLOAD REPORT
January, 1991

Table I
Credit Hour Teaching Loads and Contact Hour Loads Per FTE Faculty

	I. Teaching and Research Universities			**II. Metropolitan/Regional Universities**			**III. Community Colleges**					
Faculty	UofU	USU	CCHE*	WSU	SUU	CCHE*	SNOW	DIXIE	CEU	UVCC	SLCC	CCHE*
Regular												
Credit Hrs.	9.0	12.2	6 - 7.3	11.2***	15.4	11 - 11.2	14.8	15.7	15.3	14.6	N/A	15.1
Contact Hrs.	15.3	14.5	N/A	14.7	20.1	N/A	19.3	20.2	17.2	20.8	19.5	N/A
Wage Rated												
Credit Hrs.	8.1	15.0**	N/A	N/A	15.7	N/A	7.3	15.1	N/A	15.0	N/A	N/A
Contact Hrs.	17.1	N/A		15.7	20.2		8.1	18.7		17.5		
TA's												
Credit Hrs.	5.7	15.0**	N/A	–	–	N/A	–	–	–	–	–	N/A
Contact Hrs.	18.6	N/A										

Definitions:
FTE = Full-Time Equivalent
Wage-Rated Faculty = Part-Time Faculty
TA = Teaching Assistant
Credit Hour Teaching Load = Credits assigned to a teaching load
Contact Hour Load = Instructional contact hours including classroom, laboratory and other supervised settings
N/A = Not Available

*Carnegie Commission on Higher Education (CCHE) national data reported to the State Board of Regents in 1978. More current national data is not available. American Association of University Professors (AAUP) recommends 6-9 credit hour teaching loads for graduate level instruction and 9-12 credit hour teaching loads for undergraduate level instruction. The University of Utah surveyed a group of their peer institutions in 1988 and found the range to be 6-8 credit hours with an average of 7.5.

**An estimate based on salary paid to these individuals.

***This is understated by approximately 5% due to the fact that 15% of regular faculty teach during Summer Quarter as part of their load.

Table II
Faculty Activity Report
(Average Hours Per Week)

	I. Teaching and Research Universities			II. Metropolitan/Regional Universities			III. Community Colleges					
Faculty	UofU	USU	CCHE*	WSU	SUU	CCHE*	SNOW	DIXIE	CEU	UVCC	SLCC	CCHE*
	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %	Hrs. %
I. Total Instructional Activity (scheduled & unscheduled teaching, advising, grading, course preparation, etc.)	31.9 58.3	28.6 53.3		35.7 65	42 75		44.8 88	45.2 83.4	44.4 83.4	31.8 71	38.6 88.4	
II. Research, Scholarly & Creative Activity & Professional Growth	16.6 30.3	15.9 29.6		11 20	10 18		6.3 12	9.0 16.6	9.4 17.5	13 29	5.1 11.6	
III. Service Activity (committees, institutional & public service, extension, etc.)	6.2 11.4	9.2 17.1		8.3 15	4 7							
TOTALS	54.7 100%	53.7 100%		55 100%	56 100%		51.1 100%	54.2 100%	53.8 100%	44.8 100%	43.7 100%	

NOTE: Activity Categories II and III have been combined for the Community Colleges.

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Table III
Number of FTE Faculty, Student:Faculty Ratio, and SCH Per FTE Faculty, by Institution*

	I. Teaching & Research Universities		II. Metropolitan/Regional Universities		III. Community Colleges				
FACULTY	UofU	USU	WSU	SUU	SNOW	DIXIE	CEU	UVCC	SLCC
FTE Faculty	1219.3	570.77	451.5	145.4	66.8	82.9	69.2	238.3	301.1
Regular	869.9	495.10	396.7	118.9	58	63.42	59.3	161.7	188.8
Wage-Rated	128.4	48.79	54.8	26.5	8.8	19.48	9.9	76.6	112.3
TA's	221.0	26.88							
Student:Faculty Ratio	15.6	19.6	22.2	20.9	24.2	24	20.5	24.6	25.2
SCH Per FTE Faculty	664.0	831.2	995.7	938.9	1089.0	1080.0	922.5	1107.0	1134.0

*Preliminary information from the 1989-90 USHE Cost Study, which is based on an annualized year, including summer session.

AGENCY RESPONSE

1969

UTAH SYSTEM OF HIGHER EDUCATION
STATE BOARD OF REGENTS

355 West North Temple • 3 Triad Center • Suite 550 • Salt Lake City, Utah 84180-1205
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WM. ROLFE KERR
Commissioner and
Chief Executive Officer

May 3, 1991

Mr. Wayne L. Welsh
Auditor General
Office of the Legislative Auditor General
412 State Capitol
Salt Lake City, Utah 84180-1205

Dear Mr. Welsh:

Enclosed is the Utah System of Higher Education's response to the Legislative Auditor General's Report 91-03, "A Review of Two Higher Education Accountability Issues: Student Assessment and Faculty Workload."

We appreciate the efforts of you and members of your staff in conducting the reviews. We particularly appreciate your willingness to review the report draft with us prior to preparing the final report.

If you have questions regarding our response, please don't hesitate to contact me.

Sincerely,

Rolfe Kerr

Wm. Rolfe Kerr
Commissioner of Higher Education

Enclosure

UNIVERSITY OF UTAH
Salt Lake City
1850

UTAH STATE UNIVERSITY
Logan
1888

WEBER STATE UNIVERSITY
Ogden
1889

SOUTHERN UTAH UNIVERSITY
Cedar City
1897

SNOW COLLEGE
Ephraim
1888

DIXIE COLLEGE
St. George
1911

COLLEGE OF EASTERN UTAH
Price
1937

UTAH VALLEY COMMUNITY COLLEGE
Orem
1941

SALT LAKE COMMUNITY COLLEGE
Salt Lake City
1947

THE UTAH SYSTEM OF HIGHER EDUCATION'S

RESPONSE TO

THE LEGISLATIVE AUDITOR GENERAL'S REPORT 91-03

"A REVIEW OF TWO HIGHER EDUCATION ACCOUNTABILITY ISSUES: STUDENT ASSESSMENT AND FACULTY WORKLOAD"

Overview

Student assessment and faculty workload (or productivity) are key accountability issues for higher education institutions throughout the country. The Utah System of Higher Education (USHE), from the Board of Regents and the Commissioner's Office to the nine colleges and universities, take these accountability issues very seriously. While both issues are complex and difficult to measure, we are committed to demonstrating in the most effective ways possible that the state of Utah's investment in higher education is well worth it, and that our colleges and universities are inextricably linked to the state's economic health and overall quality of life.

Student Assessment

National Surveys

A 1987 survey jointly sponsored by the American Association of Higher Education (AAHE), the Education Commission of the States (ECS), and the State Higher Education Executive Officers (SHEEO) showed that only about a dozen states had initiated student assessment programs. In two short years, however, a follow-up survey showed that all but eight states (Delaware, Michigan, Nebraska, North Dakota, Oklahoma, Pennsylvania, Vermont, and Wyoming) had student assessment efforts either in place or in the process of being planned. **Most state assessment initiatives stem from board policies which allow individual schools the flexibility to develop their own programs which are consistent with their missions.** While 27 states have mandated assessment, only four states (Florida, Georgia, New Jersey, and Tennessee) have statewide mandated assessment instruments or tests which are used for comparison purposes. Several states which have considered common "outcomes testing" have rejected it as not appropriate or not feasible. For example, Washington spent $300,000 on a study of the various standardized general education examinations and decided to use the individual institutional approach instead. Recent feuding over the nature and purposes of state-mandated assessment by the faculty, administration, system office and legislature in Virginia illustrates how such mandates can be counterproductive.

Utah's Approach

In 1986, the Utah State Board of Regents wisely established a policy in its Master Plan which requires institutional assessment to improve educational quality:

> The State Board of Regents should require that an appropriate system of regular student educational assessment be continued on each campus, with the institutions assuming responsibility for developing the

actual processes and procedures to be used to assess students and evaluate quality. Ability assessment at entrance for purposes of academic advisement and placement should be basic to the assessment system at each institution. Other types and levels of student evaluation that ought to be considered by the institutions in designing assessment systems, many of which are already being used, include:

- 'value-added' student outcomes assessment at the sophomore and/or senior years
- assessment of 'cognitive learning' and 'skill development'
- professional or field-related assessment at graduation
- periodic, ongoing assessment of student opinions regarding their college/university experience
- assessing the opinions of students who transfer or otherwise leave the institution, including their reasons for leaving
- career and job placement records of graduates
- longitudinal assessment of student perceptions of their higher education experience five years or more after graduation

A report of each institution's assessment system should be provided to the State Board of Regents at least every five years, including decisions and actions brought about or influenced by the system of evaluation.

Outside Consultant

Peter P. Ewell, an expert on student assessment from the National Center for Higher Education Management Systems, has been invited to Utah several times in the last couple of years (most recently at the University of Utah last month) to advise and consult with individual institutions and the system. Dr. Ewell repeatedly advises institutions to start by looking at the assessment tools they already have in place, e.g. program review, admissions standards, assessment of basic skills upon entry, retention/completion studies, achievement/performance tests in major fields, "customer satisfaction" surveys, job placement and performance, etc. He suggests a review of the institution's mission to see if the assessment activities are related. He also stresses the importance of involving faculty at the departmental level in developing the overall institutional plan, as "the process of designing an assessment program is often more beneficial that the actual numerical data received through testing." He reports that while the impetus for student assessment may be accountability, most institutions stress the instructional self-improvement and curricular revitalization benefits, which in the long run may be the most beneficial for students.

Legislative Auditor General's Report

As the Legislative Auditor General's report points out, the 1989 institutional progress reports to the Board of Regents on student assessment illustrate that USHE institutions are at varying stages of planning and implementation. This is to be expected, due to the differences in size, complexity and type of institution. The first five-year reports are due to the Board in the fall of 1991. It is expected that these reports will be more definitive regarding the assessment efforts and results than were the progress reports. The Legislative Auditor General's review of the institutional assessment progress reports has given the institutions increased motivation to have their five-year reports as comprehensive as possible.

USHE Recommendation: It is our recommendation that the Legislature request a copy of the upcoming report of student assessment programs at each of the USHE institutions. To take any action prior to this time would be premature. The Regents are committed to an ongoing review and monitoring of these assessment programs and is willing to present periodic reports to the Legislature. They are also cognizant that a different approach would require considerable amounts of new funds at a time when the state can not fully fund USHE new enrollments.

Faculty Workload

Of all issues in higher education, perhaps the most complex and the least understood is faculty workload. Faculty workload studies tend to focus on teaching loads or the time spent per week in classroom instruction. Contact hour load is a broader view of teaching load in that it includes additional hours spent by faculty in the instructional role in laboratories and other supervised settings. For every instructional hour per week, it is estimated that faculty members spend another two hours in course preparation, and student advisement and performance evaluation. For example, if a faculty member's teaching load is 12-15 classroom contact hours, approximately 24-30 hours of effort related to the teaching assignment is expended bringing the weekly total to 36-45 hours. This of course is only a portion of faculty members' responsibilities. While teaching is the primary role, faculty members are expected to contribute to their community through service activities utilizing their special areas of expertise, and to contribute to their institution through service on committees and councils. In addition, faculty members are required to engage in research/scholarly/creative activities in order to keep current and contribute new knowledge and ideas to their field or discipline. All of these additional activities bring the weekly workload total to approximately 45-55 hours.

The Research Contribution

The value of research to the educational process itself, to the advancement of knowledge, and to the economic development of the state is not broadly known or understood. Faculty who are current in their fields and specialties bring more to the classroom than those who are not. Students who are involved in the research, scholarly, and creative activities of their instructors receive educational experiences not possible in the regular classroom. New technologies developed in faculty laboratories are transferred to industry, thereby enhancing local, state and national economies. All of these activities take time and must be balanced with the teaching role. The particular balance varies by type of institution, discipline, and level of instruction. That is why it is expected that teaching loads be lower for faculty in teaching/research universities than the other institutions because of their necessary involvement with research and graduate education.

Faculty members at the University of Utah and Utah State University are unusually successful in obtaining outside research contracts and grants. During 1989-90 U of U faculty members were awarded over $100 million and USU faculty were awarded over $80 million in research contracts and grants. The total for the entire USHE system for the same period was over $191 million, which with the commonly used economic multiplier of 1.7 percent brought a value of over $325 million to the state of Utah. The research parks at both the U of U and USU demonstrate the success of the transfer of technology from faculty laboratories to industry, thus creating new jobs in Utah and enhancing the quality of life for many.

Flaws in Data Collection

Because of the difficulty in obtaining consistent and comparable data and the fact that such data are quantitative rather than qualitative indicators of faculty productivity, most states have stopped collecting information on how faculty members spend their time. Instead, efforts are focussed on indicators of institutional productivity such as student-faculty ratio and student credit hours per full-time equivalent (FTE) faculty.

Legislative Auditor General's Report

The Legislative Auditor General's Report points out the inconsistencies of data collected and the need for greater consistency if the information is to be meaningful. We agree. Because the collection of any data is costly, it is important that only the most necessary and useful data be collected. We think the faculty activity report (Table II of Appendix III) has little utility and can be estimated with as much accuracy as collecting self-report data. On the other hand, the teaching load, student/faculty ratio, and student credit hour per FTE faculty is useful information.

We agree with the auditors that the method previously used in calculating full-time equivalents of part-time faculty needs to be changed. The method currently in use was adopted several years ago for internal resource needs analysis purposes and has outlived its usefulness. Consultations with institutional representatives are in process, and we will change to a method based on course teaching loads beginning with the 1991-92 fiscal year. With that change our student/faculty ratio calculations will be on a comparable basis, both within the USHE and with other states.

USHE Recommendation: It is our recommendation that the Utah System of Higher Education continue its efforts to improve the consistency of selected faculty workload/productivity data collected from system institutions. Much of this information is included in the annual cost study which is reported to the Board of Regents on a regular basis and included in the USHE Data Book, which is made available to the Legislative Higher Education Appropriations Committee.